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FINAL

TREATABILITY STUDY IN SUPPORT OF INTRINSIC REMEDIATION FOR SITE 0T 24

at

MACDILL AIR FORCE BASE TAMPA, FLORIDA

VOLUME II of II

January 1997

Prepared for:

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE
TECHNOLOGY TRANSFER DIVISION
BROOKS AIR FORCE BASE
SAN ANTONIO, TEXAS

AND

6 CES/CEVR MACDILL AIR FORCE BASE TAMPA, FLORIDA

Prepared by:

PARSONS ENGINEERING SCIENCE, INC. 1700 BROADWAY, SUITE 900 DENVER, COLORADO 80290

022/722450/MACDILL/1.WW6

TABLE OF CONTENTS VOLUME II APPENDICES

- APPENDIX A INFORMATION FROM CH2M HILL (1990 AND 1991A) AND ENSERCH ENVIRONMENTAL (1994A AND 1994B)
- APPENDIX B GEOLOGIC LOGS, MONITORING POINT INSTALLATION
 RECORDS, MONITORING POINT/WELL DEVELOPMENT AND
 SAMPLING RECORDS, SLUG TESTING RESULTS, AND SURVEY
 DATA
- APPENDIX C LABORATORY ANALYTICAL DATA
- APPENDIX D MODEL INPUT PARAMETERS AND RELATED CALCULATIONS
- APPENDIX E MODEL INPUT AND OUTPUT FILES
- APPENDIX F REMEDIAL ALTERNATIVE COST CALCULATIONS

APPENDIX A

INFORMATION FROM CH2M HILL (1990 AND 1991A) AND ENSERCH ENVIRONMENTAL (1994A AND 1994B)

SUMMARY OF GROUND WATER LEVEL/PRODUCT THICKNESS MEASUREMENTS SITE OT-24 TABLE 2.2

INTRINSIC REMEDIATION TS MACDILL AFB, FLORIDA

Water Elevation	~ .	5/23/94 8/30/94	-	+	+	8 41 4 84	\dashv	-	031 414	+	+	033 422	+	4	-	+	+	\dashv	-015 316	\dashv	_	ž ž	\dashv	\dashv	₹Z ¥Z	\dashv	\dashv	\dashv	₹ Z	+	YN YN	*2
	-	8/30/94 5/		+	- 63	•	-	•	90		-	-	-	•	,	•	-	•	•	-	•	•	¥	¥	ž	ž	ž	ž	ž	¥	٧×	7
s		5/23/94	-	+	-	•	-	•		1				•	<u>'</u>	·			•		·		ž	ž	ž	ž	ž	ž	¥	ž	ž	2
Product Inickness		10/2/89		¥	ž	٧×	ž	¥	ž	¥	¥	ž	ž	¥	ž	۲×	ž	ž	٧×	¥	¥	¥Z	ž	Σ×	207	262	2.48	3 12	690	Σ	ΣŽ	MA
20.0		9/20/89		ž	ž	ž	ž	٧×	۲×	ž	٧×	٧×	٧×	ž	¥	¥	ž	٧.	٧×	¥Z	٧V	¥		,	6-	24	2 48	241	145	٠		
		9/15/89		ž	ž	ž	ž	NA	YZ.	٧×	٧V	Y.	NA	NA	Y.	٧X	Š	¥ Z	٧N	٧N	¥	4 2		•	8	2.57	1 69	191	0 27	•		
		8/30/94		90	5 62	3.57	3.95	1 85	2.26		4.68	3 23	3.53	3.64	0	0.8	0.3	0.6	90	60	0	0	ΝA	٧¥	¥	ž	¥	₹	ž	¥	Ž	7
ដ		5/23/94	1	ΣŽ	8 86	ρίλ	7	5.48	609		8	7.12	724	7.45	4.05	3.99	3.71	3 55	391	3 62	3 12	318	٧×	٧×	ž	ž	٧×	۲×	ž	٧×	٧	7.4
Depth to Water	Feet BTOC	10/2/89		¥	¥	ΑA	NA	٧×	NA	ΝA	ΝA	٧N	٧×	NA	NA	٧N	NA	٧×	٧×	٧×	٧×	٧×	WN	MM	4.28	S I I	4 69	4 58	2 44	ΣX	Σ	7 164
వ్	(F	68/02/6		¥	٨	ΥN	٧¥	٧×	۲Z	٧×	٧×	٧×	ž	٧X	٧×	۸×	VV	۸N	¥	₹ Z	ž	ž	2.29	263	4 94	5.72	5 37	4.93	3.72	2 39	2.39	,
		68/51/6		ž	¥	٧A	NA A	¥Z	Ϋ́	¥	¥	٧×	¥Z	¥	ž	ž	Ϋ́	ž	¥	¥	¥Z	₹	1.52	1.38	4.1	49	3.79	337	2 18	135	2 2 2	
				•	3.69	•	,	-	99 -		 -	 -							•	·			¥Z.	¥	٧×	٧V	¥	ž	٧٧	٧N	٧Z	
Product	TOC)	10/2/89 5/23/94 8/30/94		,	•	•		,			•	·	•			٠		·	·	·	ŀ		ΑN	Ϋ́	٧×	NA	۲	٧×	٧N	٧×	٧X	
Depth to Product	(Feet B	10/2/89		NA	٨	¥Z	٧×	¥Z	¥	¥	ž	¥	Ϋ́	Ϋ́	ž	٧Z	ž	ž	ž	ž	ž	ž	ΣŽ	Σ	2.21	2.49	221	1,46	1.75	ž	ž	
		9/20/89		NA	AN	¥Z	٧×	ž	ž	٧Z	ž	ž	٧X	ž	ž	ž	ž	ž	ž	ž	ž	ź	<u>.</u> ا	ŀ	20.	3.32	5 8 9	2.52	227	 -	ļ.	 -
		68/51/6		NAG	ž	ž	ž	ž	ž	ž	ž	¥Z	ž	ž	ž	¥Z	ž	ž	ž	ž	ž	ž	Ŀ	ŀ	211	233	2.1	- 38	191	ŀ		
Kc⊩	Diameter	(Inches)		'n	X.	ž	X.	0	٥	2	2	7	~	2	7	2	7	2	7	~	-	7	2	7	2	2	7	7	7	7	7	
	Reported Depth Measured Depth	(Feet)		Z Z	928	6 34	7.8	¥Z	ΣZ		19.7	2011	21.73	2023	11.7	25.38	11.76	11.92	12.84	12.45	12.84	28 88	ΣŽ	MX	ΣX	MX	XX	XX	ΣX	ΣZ	XX	
Total	Reported Depth	(Feet bgs)		20.1	ZXZ	Z.	ZZ.	20.0	20.0	20.3	\vdash	7	١,	200	.1	12.5	29.0	12.2	12.2	12.2	12.1	290	5.1	5.1	6.9	76	64	5.9	5-1	0,7	6.4	
		Indentification		P\V.1	PW-3	P.W.8	PW-10	KW.1	RW-2	1-10	MD24-1) /	1		T	ND24-5	9.FC(W)	MD24-6A	MD24.7	MD24-8	MD24-9	01-FCUM	MD24-10A	ď	p.2	P. 3	p.4	p.5	p.6	P.7	8.4	0.5	

"IITOC - Below top of casing

NM = not measured
NM = not available
'NM = not reported

m \4502 Fysork plantot24tWA F24.XLS

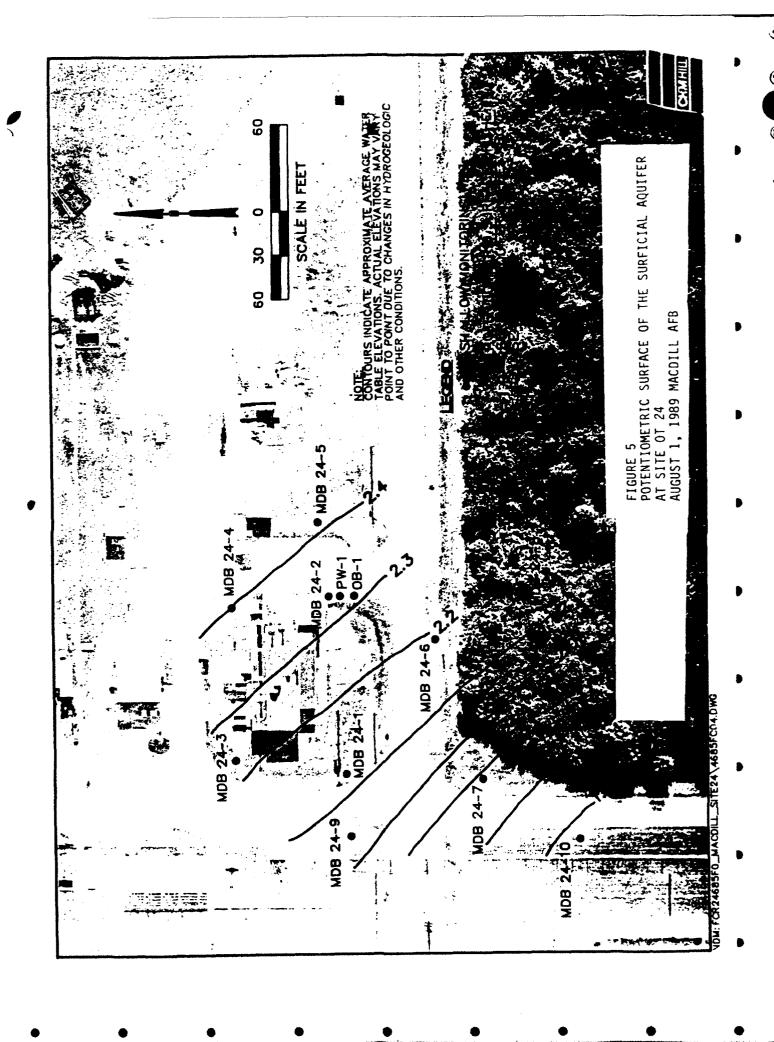


Table 1-3
OVA SAMPLING RESULTS FOR JUNE 1989, SITE OT 24, MACDILL AFB

SAMPLE #	A (0-1 ft)	B (1-2 ft)	C (2-3 ft)
1	>10,000		
2	5500		••
3	5000	**	**
4	10	••	••
5	11		
6	<10		
7	<10		••
8	15	>10,000	>10,000
9	>10,000		
10	>10,000	>10,000	
11	10	10,000	
12	<10	800	
13	<10		••
14	<10	<10	**
15	<10	<10	<10
16	<10	<10	100
17	<10	<10	20
18	<10	<10	
19	550	10,000	>10,000

Results are expressed in ppm
-- = Sample not collected

See Figure 1-4 for location of samples.

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Table 1-4
SUMMARY OF SOIL AND SEDIMENT DATA FOR JUNE 1989, SITE OT 24, MACDILL AFB

LOCATION	EPA METHOD 602 μg/Kg	TOTAL METALS mg/Kg	EP TOXICITY mg/Kg	PETROLEUM HYDROCARBONS mg/Kg
SD24-3	Ethylbenzene - 2,300 Total Xylenes - 5,800	Arsenic - 0.74 Cadmium - 3.4 Chromium - 255	Cadmium - 0.0058 Chromium - 0.033 Lead - 0.049	9,790
SD24-8B	Benzene - 210 Toluene - 400 Ethylbenzene - 3,400 Total Xylenes - 18,000	Arsenic - 0.4 Lead - 6.1		3,600
SD24-10B	Benzene - 11,000 Toluene - 360,000 Ethylbenzene - 560,000 Total Xylenes - 290,000	Arsenic - 0.85 Chromium - 10 Lead - 35		22,580
SD24-12B	Total Xylenes - 610	Arsenic - 0.62 Chromium - 4 Lead - 26		344

TPR15025.50



Table 4-3 Groundwater Honitoring Data for December 1988 and April 1989, Site 24, MacDill Afb

HETALS APRIL 1989 UR/1				Chromium unfiltered - 90 filtered - <50	
METALS December 1988 µs/1	Lead - 2	Chromium - 43 Lead - 15	Chromium - 10 Lead - 4	Chromium - 284 Lead - 45	Lead - 6
SEMI-VOLATILES DECEMBER 1988 µ8/1	Naphthalene - 13	Naphthalene - 6 2-Methylnaphthalene - 2	Bis(2-ethylhexyl) phthslate - 900	Bis(2-ethylhexyl) phthalate - 150	2-Methylphenol - 55 4-Methylphenol - 110 Naphthalene - 190 2-Methylnaphthalene - 190 Bis(2-ethylhexyl) phthalare - 33
VOLATILES HAV 1989 µB/1	Benzene - 99 Toluene - 2	Benzene - 55 Toluene - 3.8 Ethylbenzene - 4.2 Total Xylenes - 14			
VOLATILES DECEMBER 1988 PS/1	Benzene - 180 Tolvene - 43 Ethylbenzene - 2	Methyl Chloride - 29 Acetone - 19 Total Xylenes - 3	Methylene Chloride - 12 Carbon Disulfide - 2	Methylene Chloride - 7	Methylene Chloride - 34 Acetone - 1,100,000 Benzene - 3,900 Toluene - 7,200 Ethylbenzene - 300 Total Kylenes - 2,400
	MD 2 4 - 1	MD24-2	MD24-3	MD24-4	Holding Tank

a t

TPR15025.50

.)

Table 4-4
GROUNDWATER MONITORING DATA FOR AUGUST 1989, SITE 24, MACDILL AFB

	VOLATILES µg/l	SEMI-VOLATILES µg/l	LEAD pg/l
MD24-1	Methylene Chloride - 3 1,1-Dichloroethane - 2 Benzene - 170 Ethylbenzene - 2	Naphthalene - 15	7
MD24-2	Methylene Chloride - 5 Benzene - 30 Ethylbenzene - 5 Total Xylenes - 8	Naphthalene - 3	9
MD24-3	Chloromethane - 1 Methylene Chloride - 10 Acetone - 11	Bis(2-ethylhexyl) phthalate - 3	6
MD24-4	Methylene Chloride - 13	Bis(2-ethylhexyl) phthalate - 3	6
MD24-5	Methylene Chloride - 5	Bis(2-ethylhexyl) phthalate - 2	28
MD24-6	Methylene Chloride - 7 1,1-Dichloroethane - 1 Benzene - 120	Naphthalene - 7	14
MD24-7	Methylene Chloride - 4	Bis(2-ethylhexyl) phthalate - 37	29
MD24-8	Chloromethane - 1 Methylene Chloride - 7	ND	6
MD24-9	Methylene Chloride - 9 2-Butanone - 25	ND	10
MD24-10	Methylene Chloride - 5	ND	8

Table 4-6
PUMPING TEST WATER QUALITY SUMMARY FOR SITE 24, MACDILL AFB

AUGUST 1989

	TIME SINCE	PUMPING BEGAN	(HRS)
CONSTITUENTS	88	24	48
EPA Method 601			
Vinyl Chloride	23	19	22
1,1-Dichloroethane	25	26	23
EPA Method 602			
Benzene	820	930	930
Toluene	600	170	320
Ethylbenzene	110	45	140
Total Xylenes	180	65	125
EPA Method 610		•	
Naphthalene	30	N/A	28
2-Methylnaphthalene	17	N/A	9
1-Methylnaphthalene	10	N/A	5
TOC - Liquid (mg/l)	18.2	N/A	16.9
Inorganics (results in mg/l)			
Iron	4.67	N/A	4.36
Lead	<0.002	N/A <	0.002
Total Hardness as CaCO ₃	392	N/A	390

N/A - not analyzed
Results are expressed in µg/l except were noted

Table 1
SUMMARY OF GROUNDWATER MONITORING DATA
OCTOBER 1990

(

			EPA	EPA Methods 601 & 602	602					EPA Method 602		
	MD24-1 85818	MD24-2 85829	MD24.3 85819	MD24-4 85820	MD24-5 85821	MD24-6 85828	MD24-6A 85827	M:D24:7 85826	MD24-8 85825	MD24-9 85824	MD24-10 85822	MD24-10A 85823
•	10/8/90	10/8/90	10/8/90	10/8/90	10/8/90	10/8/90	06/6/01	10/8/90	10/8/90	10/8/90	10/8/90	10/8/90
Совроива	(v å n)	(ngn)	(Min)	(Man)	(ngn)	(020)	(1/4/1)	(1/ 3 m)	(1/20)	(1/ 3 m)	(140)	(1,801)
Chlomorethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6 U
Vind Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 1.	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Orionsethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7 O.1	1.0 U
TrichloroDuoromethane	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.1-Dichloroethene	1.0 U	1.0 %	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	J.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1.2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.1-Dichloroethane	07	7.7	1.0 U	1.0 U	1.0 U	1.1	5.9	1.7	1.0 U	1.0 U	1.0 U	1.0 U
Chorologue	1.0 U	ייס ת	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.0 C	1.0 U
12.Dichlorgethane	1.0 ∪	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 ∪	1.0 U	1.0 U	1.0 U	1.0 C	1.0 ∪
1 1 1 Tuchlomethane	1.0 U	1.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.0 U	1.0 C
Carbon Terrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	1.0 U	1.0 U	10 C
1.2.Dichloromoane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Troplomethere and Browndichtoromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	1.0 U	1.0 U	1.0 U	1.0 U
cis-1 3-Dichlomorphene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	1.0 U	1.0 U
trans-1 3-Dichlomorphene								1.0 U	1.0 U	100	1.0 U	1.0 U
1 2 Trichlomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	100	1.0 U	1.0 U
Dibmochlomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	1.0 U	.o.u
Broanfort	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 ∪	1.0 U	1.0 U	001	1.0 U	1.0 U
1 1 2 2. Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Tert-Bury Ether	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	4.0	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	ጽ	37	1.0 U	1.0 U	1.0 U	6.3	33	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	D 0.1	1.0 U
Terrachioroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	101	1.0 U	1.0 U
Chlorobeatene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	1.0 U	1.0 U
Ethyl Benzene	1.0 U	27 U	1.0 U	1.0 U	1.0 U	1.0 U	10.0	1.0 U	1.0 U	100	1.0 U	1.0 U
Total Xylence	1.0 U	1.4 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	100	∩ 0 1	10 C
1.3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	1.0 U	1.0 U
1.4-Dichlorobenzene	1.0 U	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100	1.0 U	100
1.2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	100	1.0 U	1.0 U	1.0 U	10.1	100	1.0 U	1.0 U
Total Volatile Aromatic Organica	33	42.5	BMDL	13	BMDL	20.4	35.9	8.1	BMDL	BMDL	BMDL	BMDL

U - Compound analyzed for but not detected BMDL - Below method detection limits

10010A54.GNV

*



6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

CASE NARRATIVE: SL Project: B430998

Date:

June 13, 1994

Client:

Enserch Environmental

Project: MacDill AFB Site 24

Laboratory:

Savannah Laboratories and Environmental Services, Inc.

Tampa Bay Division

Sixteen samples were received on May 24, 1994 and logged in as SL project B430998.

Sample '24-MW-07-01-000A' exhibited low surrogate recovery for the EPA 810 analysis due to matrix interference. Reanalysis confirmed this oproblem.

Additionally, the matrix spike results for the EPA 610 analysis exhibited low recoveries for benzo(a)pyrene. Although matrix spikes are for advisory purposes only, the samples were reanalyzed with similar results. The lab control samples' results for this analysis were all within acceptance limits.

No other analytical problems occurred with this set of samples.

Andre Rachmaninoff

C IMPS NAMENSERON 998

Laboratory locations in Savannah, GA . Taliahassee, FL . Mobile, AL . Deerfield Beach, FL . Tampa,

SAVANNAH LABURATORIES & ENVIRONMENTAL SERVICES, INC.

6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • (813) 885-7427 • Fax (813) 885-7049

LOG NO: B4-30998

Received: 24 MAY 94

Mr. Greg New Enserch Environmental 759 S.E. Federal Highway Stuart, Florida 34994-2936

Project: MacDill AFB Site 24

Sampled By: Client

REPORT OF RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION ,	LIQUID SAL	MPLES	D	ATE SAMPLED	•
30998-	1 24-MW-06-01-000A			0	5-24-94	
30998-	2 24-MW-07-01-000A			0	5-24-94	
30998-	3 24-MW-08-01-000A			0	5-24-94	
30998-	4 24-MW-10-01-000A			0	5-24-94	
30998-	5 24-MW-05-01-000A			0	5-24-94	
PARAME	TER	30998-1	30998-2	30998-3	30998-4	30998-5
Purgea	ble Halocarbons (601)					
	dichloromethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Bromo	oform, ug/l	<25	<5.0	<5.0	<5.0	<5.0
Bromo	omethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Carbo	on Tetrachloride, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Chlor	robenzene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Chlor	roethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
2-Ch1	oroethylvinyl Ether, ug/l	<50	<10	<10	<10	<10
Chlor	coform, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Chlor	comethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Dibro	omochloromethane, ug/I	<5.0	<1.0	<1.0	<1.0	<1.0
1,2-D	Dichlorobenzene, ug/l	<5.0	<1.0.	<1.0	<1.0	<1.0
1,3-D	Dichlorobenzene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,4-D	Dichlorobenzene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Dichl	orodifluoromethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
1,1-D	Dichloroethane, ug/1	7.1	6.3	<1.0	<1.0	<1.0
112-D	Dichloroethane, ug/l	~~~~<5.0	·· .0	<1.0	<1.0	<1.0
1,1-D	Dichloroethene, ug/l	×5:0~	<1.0	<1.0	<1.0	<1.0
	rans-1,2-	<5.0	<1.0	<1.0	<1.0	<1.0
Dich	nloroethylene, ug/l					
1,2-D	Dichloropropane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
cís-1	1,3-Dichloropropene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0

Laboratory locations in Savannah, GA • Tallahassee, FL • Mobile, AL • Deerfield Beach, FL • Tampa, FL

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Received: 24 MAY 94

Mr. Greg New Enserch Environmental 759 S.E. Federal Highway Stuart, Florida 34994-2936

Project: MacDill AFB Site 24
Sampled By: Client

REPORT OF RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION ,	LIQUID S	AMPLES		DATE SAMPLE	:D
30998-1	24-MW-06-01-000A				05-24-94	
30998-2	24-MW-07-01-000A				05-24-94	
30998-3	24-MW-08-01-000A				05-24-94	
30998-4	24-MW-10-01-000A				05-24-94	
30998-5	24-MW-05-01-000A				05-24-94	
PARAMETER		30998-1	30998-2	30998-3	30998-4	30998-5
trans-1,3-	Dichloropropene, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
Methylene			<1.0	<1.0	<1.0	<1.0
	omethane), ug/l					
	etrachloroethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
	coethene, ug/1	<5.0	<1.0	<1.0	<1.0	<1.0
	chloroethane, ug/1	<5.0	<1.0	<1.0	<1.0	<1.0
	chloroethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
	ethylene, ug/1	<5.0		<1.0	<1.0	<1.0
	Eluoromethane, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
	oride, ug/l	7.6	4.0	<1.0	<1.0	<1.0
Surrogate	-	15.1	15.1	15.0		
	oromethane, ug/l					
	-Expected Value, ug/l	15	15	15	15	15
— .	-I Recovery	100 Z	100 Z	100 Z	100 Z	100 Z
_	· · · · · · · · · · · · · · · · · · ·		46-118 %			
Date Analy				05.31.94		
Batch ID	,	0531Q	0531Q			

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Project: MacDill AFB Site 24

Sampled By: Client

REPORT OF RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION	, LIQUID S	AMPLES		DATE SAMPLE	D
30998-1 30998-2	24-MW-06-01-000A 24-MW-07-01-000A	,	**********		05-24-94 05-24-94	
30998-3	24-MW-08-01-000A				05-24-94	
30998-4	24-MW-10-01-000A				05-24-94	
30998-5	24-MW-05-01-000A				05-24-94	
PARAMETER		30998-1			30998-4	
Purgeable	Aromatics (EPA 602)					
Benzene,.	.ug/ly.	160	4.2	<1.0	<1.0	<1.0
Toluene,	ug/1	<5.0	<1.0	<1.0	<1.0	<1.0
Ethylbena	zene, ug/l'a	<5.0	<1.0	<1.0	<1.0	<1.0
Total Xyl	lenes, ug/l	<5.0	<1.0	<1.0	<1.0	<1.0
	Latile Organic	160	4.2	<1.0	<1.0	<1.0
Methyl-Te (MTBE),	ert-Butyl-Ether ug/l	<50	<10	<10	<10	<10
	e - a,a,a - rotoluene, ug/l	20.0	20.0	20.0	20.0	20.0
Surrogate	e - Expected Value, ug	3/1 20	20	20	20	20
Surrogate	- 7 Actual Recovery	100 Z	100 Z	100 Z	100 Z	100 Z
Surrogate	e - Control Limit	77-140 Z	77-140 Z	77-140 %	77-140 Z	77-140 Z
Date Anal	lyzed	05.31.94	05.31.94	05.31.94	05.31.94	05.31.94
Batch ID		0531Q	0531Q	0531Q	0531Q	0531Q

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Project: MacDill AFB Site 24
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REPORT OF RESULTS

Page 5

LOG NO	SAMPLE DESCRIPTION ,	LIQUID SA	MPLES		DATE SAMPLE	
30998-6 30998-7	24-MW-09-01-000A 24-MW-01-01-001A				05-24-94 05-23-94	• • • • • • • • • • • •
30998-8	24-MW-06A-01-001A				05-23-94	
30998-9	24-MW-10A-01-001A				05-23-94	
30998-10	24-MW-03-01-000B				05-24-94	
PARAMETER		30998-6	30998-7	30998-8	30998-9	30998-10
Purgeable	Halocarbons (601)					
_	loromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	, ug/l	<5.0	<5.0	<5.0	<5.0	<5.0
Bromometh	ane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Te	trachloride, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroben	zene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroeth	ane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2-Chloroe	thylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chlorofor	m, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromet	hane, ug/l	<1.0	<1.0	<1.0		<1.0
Dibromoch	loromethane, ug/l	<1.0	<1.0	<1.0		<1.0
1,2-Dichl	orobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichl	orobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichl	orobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorod	ifluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichl	oroethane, ug/l *	<1.0	1.3	2.2	1.1	<1.0
	oroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichl بالم	oroethene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis/trans	-	<1.0	<1.0	<1.0	<1.0	<1.0
Dichloro	ethylene, ug/l					
1,2-Dichl	oropropane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-D	ichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

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Project: MacDill AFB Site 24
Sampled By: Client

REPORT OF RESULTS

LOG NO SAMPLE DESCRIPTION .	LIQUID S	AMPLES		DATE SAMPLE	D
30998-6 24-MW-09-01-000A				05-24-94	
30998-7 24-MW-01-01-001A				05-23-94	
30998-8 24-MW-06A-01-001A				05-23-94	
30998-9 24-MW-10A-01-001A				05-23-94	
30998-10 24-MW-03-01-000B				05-24-94	
PARAMETER	30998-6	30998-7	30998-8	30998-9	30998-10
trans-1,3-Dichloropropene, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0
(Dichloromethane), ug/1					
1,1,2,2-Tetrachloroethane, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride, ug/l	<1.0	<1.0	2.0	<1.0	<1.0
Surrogate - Bromochloromethane, ug/l	15.1	15.0	14.7	15.1	15.0
Surrogate-Expected Value, ug/1	15	15	15	15	15
Surrogate-Z Recovery	100 Z	100 Z	98 %	100 Z	100 Z
•	46-118 Z	46-118 %	46-118 Z	46-118 Z	46-118 %
•	05.31.94		06.01.94		
Batch ID	0531Q	0531Q	0531Q	0531Q	0531Q



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Project: MacDill AFB Site 24

Sampled By: Client

REPORT OF RESULTS

LOG NO SAMPLE DESCRIPTION	, LIQUID SA	AMPLES		DATE SAMPLE	D
30998-6 24-MW-09-01-000A 30998-7 24-MW-01-01-001A 30998-8 24-MW-06A-01-001A 30998-9 24-MW-10A-01-001A 30998-10 24-MW-03-01-000B				05-24-94 05-23-94 05-23-94 05-23-94 05-24-94	
PARAMETER	30998-6	30998-7	30998-8	30998-9	30998-10
Purgeable Aromatics (EPA 602)	~				
Benzene, ug/1	<1.0	<1.0	23	<1.0	<1.0
Toluene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
Total Xylenes, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Total Volatile Organic Aromatics, ug/l	<1.0	<1.0	23	<1.0	<1.0
Methyl-Tert-Butyl-Ether (MTBE), ug/l	<10	<10	<10	<10	<10
Surrogate - a,a,a - Trifluorotoluene, ug/l	20.0	20.0	20.0	20.0	20.0
Surrogate - Expected Value, ug	/1 20	20	20	20	20
Surrogate - Z Actual Recovery		100 Z	100 Z	100 Z	100 Z
Surrogate - Control Limit			77-140 Z	77-140 Z	77-140 %
				05.31.94	
Batch ID	0531Q	0531Q	0531Q	0531Q	0531Q



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CASE NARRATIVE: SL Project: B431903

Date: September 19, 1994

Client: Enserch Environmental

Project: MacDill Site 24 Task 13/Sample Period 02

Laboratory: Savannah Labiratories and Environmental Services, Inc.

Tampa Bay Division

Sixteen samples were received on August 31, 1994 and logged in as SL project B431903.

No analytical problems were encountered with this set of samples.

Andre Rachmaninoff

C IWPS I ARIENSERCH.902

SL SAVANNAH LABORATORIES & ENVIRONMENTAL SERVICES. INC.

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LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New Enserch Environmental 759 S.E. Federal Highway Stuart, Florida 34994-2936

> Froject: MacDill Site 24/Task 13 Sample Period 02 Sampled By: Client

REFORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION .	LITUID SA	MPLES		DATE SAMPLED)
	24-MW1-02-002B 24-MW2-02-002B 24-MW3-02-002C 24-MW3-QC-02-002C 24-MW4-02-002B				08-31-94 08-31-94 08-31-94 08-31-94	
PARAMETER		319:3-1	31903-2	31903-3	31903-4	31903-5
Purgeable	Halocarbons (601)					
Bromodic	hloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Bromofor	m, ug/1	<5.0	<5.0	<5.0	<5.0	<5.0
Bromometi	hane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon To	etrachloride, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobe	nzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroet	hane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
2-Chloro	ethylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chlorofo	rm, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	thane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	hloromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	lorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	lorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	lorobenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	difluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	loroethane, ug/l	<1.0	<1.0	<1.0		<1.0
	loroethane, ug/l	<1.0	<1.0	<1.0		<1.0
	loroethene, ug/l	<1.0	<1.0	<1.0		<1.0
cis/tran: Dichlor	s-1,2- oethylene, ug/l	<1.0	1.7	<1.0	<1.0	<1.0
1,2-Dich	loropropane, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-	Dichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

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LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New Enserch Environmental 759 S.E. Federal Highway Stuart, Florida 34994-2936

Project: MacDill Site 24/Task 13 Sample Period 02

Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION ,	LIQUID SA	AMPLES	I	DATE SAMPLE	D .
31903-1 31903-2 31903-3 31903-4 31903-5	24-MW1-02-002B 24-MW2-02-002B 24-MW3-02-002C 24-MW3-QC-02-002C 24-MW4-02-002B	· · · · · · · · · · · · · · · · · · ·		(08-31-94 08-31-94 08-31-94 08-31-94	
PARAMETER		31903-1	31903-2	31903-3	31903-4	31903-5
Methylene (Dichloro 1,1,2,2-Te Tetrachlor 1,1,1-Tric 1,1,2-Tric Trichloroe Trichlorof Vinyl Chlo Surrogate Surrogate	Dichloropropene, ug/l Chloride methane), ug/l trachloroethane, ug/l oethene, ug/l hloroethane, ug/l hloroethane, ug/l thylene, ug/l luoromethane, ug/l ride, ug/l - Bromochloromethane Expected Value Z Recovery	<1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 1.2 14.5 15	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0
	Control Limit	50-136 % 09.02.94 0901Q	50-136 Z 09.02.94 0901Q	50-136 Z	50-136 Z 09.02.94 0901Q	

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LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New Enserch Environmental 759 S.E. Federal Highway Stuart, Florida 34994-2936

> Project: MacDill Site 24/Task 13 Sample Period 02 Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION	, LIQUID SA	amples	;	DATE SAMPLE)
31903-2 31903-3 31903-4 31903-5	24-MW1-02-002B 24-MW2-02-002B 24-MW3-02-002C 24-MW3-QC-02-002C 24-MW4-02-002B		•••••		08-31-94 08-31-94 08-31-94 08-31-94	
PARAMETER		31903-1	31903-2	31903-3	31903-4	31903-5
Benzene, u Toluene, u Ethylbenze Total Xyle Total Vola Aromatics Methyl-Ter (MTBE), u Surrogate Trifluoro Surrogate Surrogate Surrogate	g/l ne, ug/l nes, ug/l tile Organic , ug/l t-Butyl-Ether g/l - a,a,a - toluene - Expected Value - I Actual Recovery - Control Limit	<1.0 <1.0 <1.0 <1.0 <10 20.9 20 104 % 77-140 %	<1.0 1.4 <1.0 39.4 <10 21.5 20 108	<1.0 <1.0 <1.0 <1.0 <1.0 <22.3 20 112 %	<1.0 <1.0 <1.0 <10 21.5 20 101 7 77-140 7	<1.0 <1.0 <1.0 <1.0 <10 20.6 20 103 %
Date Analy Batch ID	zed				09.02.94 0901Q	

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LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New Enserch Environmental 759 S.E. Federal Highway Stuart, Florida 34994-2936

> Project: MacDill Site 24/Task 13 Sample Period 02 Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION ,	LIQUID SA	MPLES		DATE SAMPLE	
31903-6 31903-7	24-MW6-02-001A 24-MW6A-02-001A				08-30-94 08-30-94	
	24-MW7-02-001A				08-30-94	
	24-MW8-02-002B				08-31-94	
	24-MW9-02-001A				08-30-94	
PARAMETER		31903-6	31903-7	31903-8	31903-9	31903-10
Purgeable H	Halocarbons (601)				·	
Bromodich!	oromethane, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform,		<5.0	<\$.0	<5.0	<5.0	<5.0
Bromometha	ine, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tet	rachloride, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenz	cene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroetha		<1.0	<1.0	<1.0	<1.0	<1.0
	chylvinyl Ether, ug/l	<10	<10	<10	<10	<10
Chloroform		<1.0	<1.0	<1.0	<1.0	<1.0
	nane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	loromethane, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
•	probenzene, ug/l	<1.0	<1.0	<ļ.0	<1.0	<1.0
	probenzene, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
	probenzene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	ifluoromethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	proethane, ug/l	<1.0	1.6	<1.0	<1.0	<1.0
	proethane, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	proethene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
cis/trans- Dichloroe	-1,2- ethylene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
	propropane, ug/1	<1.0	<1.0	<1.0	<1.0	<1.0
	ichloropropene, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0

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LOG NO: B4-31903

Received: 31 AUG 94

Mr. Greg New Enserch Environmental 759 S.E. Federal Highway Stuart, Florida 34994-2936

> Project: MacDill Site 24/Task 13 Sample Period 02 Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION ,	LIQUID SA	AMPLES		DATE SAMPLE	
	24-MW6-02-001A 24-MW6A-02-001A 24-MW7-02-001A 24-MW8-02-002B 24-MW9-02-001A				08-30-94 08-30-94 08-30-94 08-31-94 08-30-94	
PARAMETER		31903-6	31903-7	31903-8	31903-9	31903-10
Methylene (Jichlorof 1,1,2,2-Te Tetrachlorof 1,1,1-Trick Trickloroe Tricklorof Vinyl Chlo Surrogate Surrogate Surrogate	methane), ug/l trachloroethane, ug/l oethene, ug/l hloroethane, ug/l hloroethane, ug/l thylene, ug/l luoromethane, ug/l ride, ug/l - Bromochloromethane Expected Value Z Recovery Control Limit	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.7 15 71 7 50-136 7 09.02.94	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 12.7 15 85 7 50-136 7 09.02.94	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.5 15 77 \$ 50-136 \$

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LOG NO: 84-31903

Received: 31 AUG 94

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Project: MacDill Site 24/Task 13 Sample Period 02

Sample: By: Client

REPORT OF RESULTS

LOG NO SAMPLE DESCRIPTION	, LIQUID SA	AMPLES		DATE SAMPLE)
31903-6 24-MW6-02-001A 31903-7 24-MW6A-02-001A 31903-8 24-MW7-02-001A 31903-9 24-MW8-02-002B 31903-10 24-MW9-02-001A				08-30-94 08-30-94 08-30-94 08-31-94 08-30-94	
PARAMETER	31903-6	31903-7	31903-8	31903-9	31903-10
Purgeable Aromatics (EPA 602)					
Benzene, ug/l	<1.0	20	<1.0	<1.0	<1.0
Toluene, ug/l		<1.0			<1.0
Ethylbenzene, ug/l	<1.0		<1.0		<1.0
Total Xylenes, ug/l	<1.0	<1.0	<1.0	<1.0	<1.0
Total Volatile Organic Aromatics, ug/l	<1.0	20	<1.0	<1.0	<1.0
Methyl-Tert-Butyl-Ether (MTBE), ug/l	<10	<10	<10	<10	<10
Surrogate - a,a,a - Trifluorotoluene	20.8	19.3	19.3	19.2	19.1
Surrogate - Expected Value	20	20	20	20	20
Surrogate - % Actual Recovery	104 Z	95 %	96 🏅	96 🖫	95 Z
Surrogate - Control Limit	77-140 Z	77-140 Z	77-140 Z	77-140 I	77-140 Z
Date Analyzed	09.02.94	09.02.94	09.02.94	09.02.94	09.02.94
Batch ID	0902Q	0 901Q	0901Q	0901Q	0901Q

APPENDIX B

GEOLOGIC LOGS,
MONITORING POINT INSTALLATION RECORDS,
MONITORING POINT/WELL DEVELOPMENT AND
SAMPLING RECORDS,
SLUG TESTING RESULTS, AND
SURVEY DATA

GEOLOGIC BORING LOG

Sheet 1 of 1

BORING NO.:	24MP-1A	.CONTRACTOR:	PARSONS ES	DATE SPUD:	3/8/95
CLIENT:				DATE CMPL .:	3/8/95
JOB NO.:	722450.21	DRLG METHOD:	GEOPROBE	ELEVATION:	
LOCATION:	MACDILL AFB	BORING DIA.:	2 INCHES	TEMP:	
GEOLOGIST:	KC	DRLG FLUID:	NONE	WEATHER:	RAIN

СОММЕ	ENTS:											
Elev	Depth		US				Sample			WKSPC	TOTAL	TPH
(ft)	(ft)	file	_cs	Geologic Description Dark brown, fine— to medium—grained, quartz sand	No.	Depth (ft)	Туре	Res	PID(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
	- 1 -			FILL with sit. Subangular to subrounded grains.			С					
			SP	Brown, fine— to medium-giřained quartz SAND. Subangular to subrounded graine. Wet.			Ŏ					
Y			SF	Hydrocarbon odor at 3 feet bgs. Saturated at 4.5 feet bgs.	1	3-4	Ň		81.8			
	5 -			Succession 3. 3. Seek bys.			7					
				SAA with strong hydrocarbon ador and dark staining.	ļ							
							N		99.9			
		,,,	SW	Light brown, fine— to medium—grained SAND. Well sorted, subangular to subrounded quarts grains.			Ü					
	-10-						Ŏ					
							Ŭ		705			
				Bottom of hole at 12 feet bgs.			Š					
	<u> </u>)					
	-15-						С					
							Ŏ					
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	-20-						Ë					
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NOTES

SAMPLE TYPE

bgs — Below Ground Surface

D - DRIVE

GS - Ground Surface

C - CORE

TOC - Top of Casing

G - GRAB

NS — Not Sampled

SAA - Same As Above

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

Denver, Colorado

L: \45021\DRAWINGS\BORELOGS\OT-24\24MP1A, 01/03/96 at 10:11

QC. V Rothman 012396

	· · · · · ·			GEOLOGI	C BORIN	IG	LOC	<u> </u>			Shee	et 1 of	1
DOGING NA	24M	P_1R		CONTRACTOR:	PARSONS ES	_	_	4 TC	~~· · ·	, τ	3/166 3/8/95		
	AFCI			.CONTRACTOR:	GEOPROBE		D				5/8/95		· · · · · · · · · · · · · · · · · · ·
OCICITI.		450.2		DRLG METHOD:			E				7 - 7		
				BORING DIA.:	2 INCHES					_			
				DRLG FLUID:	NONE		W	EATH	IER:	F	MIAS	····	
COMMENTS:													
Elev Depth F	Pro-	US				Sc	mple	Sample	Penet		WKSPC	TOTAL	TPH
	file	cs		Geologic Description	n		Depth (ft)			PID(ppm)		BTEX(ppm)	
F1-1			No Sample. F	NL.				$\hat{}$					
1 1								Č					
▼	- 1							0					
5	ł							N					
		SP	Brown, fine— t Strong hydroco	to medium—grained SAN orban adar with staining	D with silt.								
	7.	<u> </u>									<u> </u>		
			Light brown, fi	ine— to medium—graine	d quartz SANO.	1	8-9	N			 		
10-	***	SW	well sorted.	lydrocarbon odor preser	nt.			U					
								0					
								U			ļ		
	انت		Battom of ho	e at 13 feet bgs.				S					
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NOTE	۰ς			SAMPLE	TYPE	ŀ	G	EOL	OGI	CBC	ORIN(G LO	3
bgs - Bel		Grou	nd Surface			l							
GS - Gro				C – CO				Intri	rsic	Reme	diatio	n TS	
TOC - Top				G - GR		[, Florid	da
NS - No			-	2 0		 =	<u></u>	NRS	ne-				
SAA - Sar				▼ Water le	vel drilled						5C	ENCI	E, INC.
											olora		

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GEOLOGIC BORING LOG Sheet 1 of 1 ____CONTRACTOR: PARSONS ES 3/8/95 BORING NO .: 24MP-10 _ DATE SPUD: **GEOPROBE** 3/8/95 AFCEE CLIENT: _____RIG TYPE: ___ DATE CMPL.: 722450.21 DRLG METHOD: GEOPROBE 5,66 JOB NO.: ELEVATION: MACDILL AFB BORING DIA.: 2 INCHES _____ TEMP: LOCATION: RAIN NONE GEOLOGIST: KC _____DRLG_FLUID: __ WEATHER: COMMENTS:

Elev	Depth	Pro-	US			iomple	Sample			WKSPC	TOTAL	ТРH
(ft)	(ft)	file	CS	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
				No Sample. FILL.			ļ —					
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					l		Ŏ					-
¥					•							
							Ν		 			
	 5 -		 -	Brown, fine- to medium-grained SAND with silt.	1		T					
			SP	Strong hydrocarbon ador with staining.	1		,					
					1							
	<u> </u>			Light brown, fine- to medium-grained quartz SAND.	-	-	Ν					
	L		SW	Well sorted. Hydrocarbon odor present.	1	8-9						
	 10-		1211		l		U					
	L						0					
					1		1 1					
							U S					
				Bottom of hole at 13 feet bgs.	1	1	5					
				•								
	 15-		1				С		 			
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NOTES

bgs - Below Ground Surface

GS - Ground Surface

TOC — Top of Casing

NS - Not Sampled

SAA - Same As Above

SAMPLE TYPE

D - DRIVE

C - CORE

G - GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

GEOLOGIC BORING LOG Sheet 1 of 1 PARSONS ES BORING NO .: 24MP-15 3/8/95 CONTRACTOR: __ DATE SPUD: AFCEE GEOPROBE 3/8/95 CLIENT: RIG TYPE: __ DATE CMPL.: 5,66 JOB NO.: 722450.21 DRLG METHOD: GEOPROBE _ ELEVATION: LOCATION: MACDILL AFB BORING DIA .: 2 INCHES __ TEMP: RAIN GEOLOGIST: KC NONE DRLG FLUID: _ WEATHER: COMMENTS: . Elev Depth Pro- US Sample Sample Penet WKSPC TOTAL

(ft)	(ft)	file	CS	Geologic Description	No.	Depth (ft)	Туре	Res	P10(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
	- 1 -			Dark brown, fine— to medium—grained, quartz sand FiLL with silt. Subangular to subrounded grains.	Γ							
					1		С					
		\$ 5.5	SP	Brown, fine— to medium—grained quartz SAND. Subangular to subrounded graine. Wet,	L		0	1 1				
Y			124	Hydrocarbon odor at 3 feet bgs.	1	3-4		1 1	81.8			
_				Saturated at 4.5 feet bgs.			Ν	1				·
	 5]	T					
				SAA with strong hydrocarbon odor and dark staining.				[]				
		[4,7,61]					N.I		99.9			
			CW	Light brown, fine— to medium-groined SAND. Well earted, subangular to subrounded quarts grains.	1		Ν					
			SW	sorted, subangular to subrounded quarts grains.			U	!	l			
	10-		1 }		1	1 1	0	1 }			 	
			[1	[[705			
				Bottom of hole at 12 feet bgs.	1) Ì	\supset (-		·	L—
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NOTES

bgs - Below Ground Surface

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled

SAA - Same As Above

SAMPLE TYPE

D - DRIVE

C - CORE

G - GRAB

Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

Denver, Colorado

PARSONS ENGINEERING SCIENCE, INC.

L: \45021\DRAWINGS\BORELOGS\OT-24\24MP1A. 01/03/96 at 10:11

GEOLOGIC BORING LOG

Sheet 1 of 1

__CONTRACTOR: PARSONS ES BORING NO .: 2455-1 3/10/95 __ DATE SPUD: 3/10/95 **GEOPROBE** AFCEE RIG TYPE: CLIENT: __ DATE CMPL.: DRLG METHOD: GEOPROBE 5.56 722450.21 JOB NO.: __ ELEVATION: WARM MACDILL AFB 2 INCHES LOCATION: ___ BORING DIA.: __ TEMP: CLEAR, SUNNY GEOLOGIST: KC NONE __DRLG_FLUID: _ WEATHER: COMMENTS: BACKGROUND PID = 7.6 ppmv

	Depth		US			ample	Sample			WKSPC	TOTAL	ТРH
(ft)	(ft)	file	cs	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
	- 1 -		SP	Topsail to 3 inches bgs. Dark brown, medium— to fine—grained, sandy,silty FILL.								
	,)	John Groun, Medicine to the grounds, Salidy, Sky Files			С		7.6	7.6		
							0					
•							Ν					
¥	- 5 -			SAA, becoming saturated at 4.5 feet bgs.	1	4-6						
			1				T		7.6			
			ļ									
			SW	White to light brown, well-sorted, fine to medium-grained quartz SAND.			Ν		7.6			
			J ''	mediam - granta quartz SANO.								
	-10-						Ú		7.6			
	'			Bottom of hole at 10 feet bgs.			0					
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NOTES

bgs - Below Ground Surface

00 0 10 1

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled

SAA - Same As Above

SAMPLE TYPE

D - DRIVE

J - DINIVL

C - CORE

G - GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS

ENGINEERING SCIENCE, INC.

GEOLOGIC BORING LOG

Sheet 1 of 1

CONTRACTOR: PARSONS ES 3/11/95 BORING NO .: 24SS-3 _ DATE SPUD: AFCEE GEOPROBE 3/11/95 CLIENT: RIG TYPE: __ DATE CMPL.: _ DRLG METHOD: GEOPROBE MM722450.21 _ ELEVATION: JOB NO .: COOL BORING DIA .: 2 INCHES LOCATION: MACDILL AFB _ TEMP: CLEAR, SUNNY GEOLOGIST: KC NONE _DRLG FLUID: _ WEATHER:

COMMENTS: BACKGROUND PID = 7.1 ppmv

Elev	Depth	Pro-	US				Sample			WKSPC	TOTAL	TPH
(ft)	(ft)	file	ÇS	Geologic Description	No.	Depth (ft)	Type	Res	P10(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
	- 1 -		SP	Gravelly, sandy Fill. to 1 foot bgs. Brown, fine— to medium—grained, silty sandy Fill. Saturated at 2 feet bgs. Woody vegetation present.			С					
¥	\vdash			Saturated at 2 feet bgs. Woody vegetation present.	 	├	1		>1000			
	\vdash				١	2-4	0		>1000			
					 	 	Ν					
	- 5 -		SW	Light brown, fine— to medium—grained, well—sorted	ļ		T		>1000			
			211	SÁND.								
				No sample. Sample too saturated to recover.	l	1	N					
		ڊ د سام					ΰ					
	10-				2	9-11	Ö		35.7	<u> </u>		
					-	 	3		>1000			
		(4.3 (A)		Bottom of hole at 12 feet bgs.	1		Ñ					
				Bottom of nois at 12 feet bys.		Į	S					
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NOTES

bas - Below Ground Surface

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled

SAA - Some As Above

SAMPLE TYPE

D - DRIVE

C - CORE

G - GRAB

Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

GEOLOGIC BORING LOG Sheet 1 of 1 CONTRACTOR: PARSONS ES BORING NO .: 24MP-2 3/8/95 _ DATE SPUD: 3/8/95 **AFCEE** GEOPROBE _ DATE CMPL.: RIG TYPE: ____ DRLG METHOD: GEOPROBE 5.25 722450.21 _ ELEVATION: MACDILL AFB BORING DIA.: 2 INCHES __ TEMP: SUN NONE __DRLG_FLUID: _ WEATHER:

	Depth	Pro-	US				Sample			WKSPC	TOTAL	TPH
(ft)	(ft)	file	ÇS	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
	_ 1 _			Brown topsoil to 1.5 feet bgs.								
				Brown, fine-grained, silty sand FILL. Subangular to			C			 		
			SP	Brown, fine—grained, silty sand FILL. Subangular to subrounded grains. Strong hydrocarbon odor and dark staining present.			0			<u> </u>		
<u>¥</u>					1	3-4	Ν		>1000	ļ		
=	- 5			Light brown, fine— to medium—grained SAND. More highly sorted. Saturated at 4.5 feet bgs.			T		27.2	}		
									17.2	-		
	<u> </u>		1	SAA turning white with weaker hydrocarbon odar.		İ			27.2	 		
							N					
	40		SW				U		9.0			
	-10-			Bottom of hole at 10 feet bgs.			0					
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NOTES

CLIENT:

JOB NO.:

LOCATION:

COMMENTS:

GEOLOGIST: KC

bgs - Below Ground Surface

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled

SAA – Same As Above

SAMPLE TYPE

D - DRIVE

C - CORE

G - GRAB

Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida



Sheet 1 of 1

CONTRACTOR: PARSONS ES BORING NO .: 24MP-3 3/9/95 __ DATE SPUD: AFCEE GEOPROBE 3/9/95 RIG TYPE: CLIENT: _ DATE CMPL .: DRLG METHOD: GEOPROBE 4 17 722450.21 JOB NO.: _ ELEVATION: COOL BORING DIA .: 2 INCHES MACDILL AFB LOCATION: _ TEMP: CLEAR GEOLOGIST: KC NONE DRLG FLUID: _ WEATHER: COMMENTS: BACKGROUND PID = 3.5 ppmv

Elev	Depth	Pro-	US		S	omple	Sample	Penet		WKSPC	TOTAL	TPH
(ft)	(ft)	file	cs	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
Y	- 1 -		SP	Brown topsoil to 0.5 feet bgs. Brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Saturated at 3 feet bgs.			00					
=	- 5 -				1	3-5) -		3.5			
			SW	Light brown, fine— to medium—groined quartz SAND. More highly sorted.			1		3.5			
							N U		3.5			
	10-						0		J.J			
			SP	Brown, fine— to medium —grained SAND as above.			U S					
	15-		131	No sample.			С					
		Á.		White, well sorted quartz SAND as above.			OORH					
	-20-		SW	No sample.			Ε					
		_		No sample. Too saturated to stay in sample tube.								
	25-											
				Battom of hale at 25 feet bgs.								
	-30-											
		}										

NOTES

SAMPLE TYPE

bgs - Below Ground Surface

D - DRIVE

GS - Ground Surface

C - CORE

TOC - Top of Casing

G - GRAB

NS - Not Sampled SAA - Same As Above

Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS

ENGINEERING SCIENCE, INC.

Sheet 1 of 1

BORING NO .: 24MP-4 ___ CONTRACTOR: AFCEE CLIENT: RIG TYPE:

PARSONS ES **GEOPROBE**

___ DATE SPUD: ___ DATE CMPL.:

3/9/95 3/9/95

JOB NO.; LOCATION: 722450.21 DRLG METHOD: GEOPROBE MACDILL AFB ____BORING DIA.:

____ ELEVATION: 2 INCHES _____ TEMP: NONE

5.42 COOL MARION

GEOLOGIST: KC

__DRLG_FLUID: COMMENTS: BACKGROUND PID = 3.5 ppmv

____ WEATHER:

WINDY			
	*****	and the same of th	

Elev	Depth	Pro-	US				Sample			WKSPC	TOTAL	ТРH
(ft)	(ft)	file	CS	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	PtD(ppm)	BTEX(ppm)	(ppm)
	1 -			Brown topsoil to 3 inches bgs. Light brown, fine-grained, silty sand FILL. Subangular								
	Γ' -		SP	to subrounded grains. Six inch layer of white, sandy	1		C					
			اد ا	gravel at 1 foot bgs. Areas of grey coloring present.			0		3.5			
_						1, ,			3.5	3.5		
<u>¥</u>	_]	SAA. Saturated at 4.5 feet bgs. Turning dark brown,	1	3-5	Ν		3.5			
	 5 -						T		3.5			
			CILL	Light brown, fine— to medium—grained quartz SAND.						<u> </u>		
			SW	Well sorted.					3.5	3.5		
			SP	At 8 feet bgs, 1 foot layer of dark brown, silty SAND.		ľ	N			 -		
		2.5	SW	White, fine-grained quartz SAND.			U		3.5			
	 10-		<u> </u>	Bottom of hole at 10 feet bgs.		1	0			<u> </u>	<u> </u>	
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NOTES

SAMPLE TYPE

bgs - Below Ground Surface

D - DRIVE

GS - Ground Surface

SAA - Same As Above

C - CORE

TOC - Top of Casing

G - GRAB

NS — Not Sampled

Water level drilled

Intrinsic Remediation TS MacDill Air Force Base, Florida

GEOLOGIC BORING LOG

PARSONS

ENGINEERING SCIENCE, INC.

Sheet 1 of 1

BORING NO.:	24MP-5	CONTRACTOR:	PARSONS ES	DATE SPUD:	3/8/95
CLIENT:		RIG TYPE:		DATE CMPL.:	3/8/95
JOB NO.:		DRLG METHOD:		ELEVATION:	5.29
LOCATION:		BORING DIA .:		TEMP:	WARM
GEOLOGIST:				WEATHER:	SUNNY
COMMENTS:	BACKGROUND PID =	3.5 ppmv			

Elev	Depth	Pro-	US				Sample			WKSPC	TOTAL	TPH
(ft)	(ft)	file	CS	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
	- 1 -		1	Brown topsoil to 3 inches bgs.								
	L'		SP	Light brown, fine-grained, sitty sand FiLL. Subangular to subrounded grains. Six inch layer of white, sandy gravel and 6 inch grey sand lens at 1.5 feet bgs.	1		C					
•			J'	SAA. Saturated at 3.5 feet bgs.	L		0			3.5		
¥			İ		,	3-5	Ň		3.5			
	- 5	•	1		L'		T					
	لــّــا								3.5			
	<u> </u>		SW	Light brown, fine— to medium—grained quartz SAND. Well sorted.								
	<u> </u>		J ''				N		3.5			
	<u> </u>]	Ü			3.5		
	-10-								3.5			
				No sample.			0			<u> </u>		
	 						U					
	 						S			 		
	-15-	3 7 4 4 3 7 3 6		Light brown, fine-grained, silty SAND. Poorly sorted.		1				<u> </u>		
	 		SP				C					
	}			Bottom of hole at 17 feet bas.			0					
				bottom of note of 17 feet ags.			R					
	 						Ē					
	-20-						-					
	 											
	 											
					[[
	-25-											
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				!	1	1						
	-30-											
					1							
					ł							
						1						
					1	1						
	75		1		1)	i i					

NOTES

bgs - Below Ground Surface

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled

SAA - Same As Above

SAMPLE TYPE

D - DRIVE

C - CORE

G - GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC. Denver, Colorado

L: \45021\DRAWINGS\BORELOGS\OT-24\24MP5, 01/03/96 at 10:26

__ CONTRACTOR:

PARSONS ES

Sheet 1 of 1

BORING NO .: 24MP-6 CLIENT:

AFCEE

GEOPROBE

__ DATE SPUD: ____ DATE CMPL.:

____ WEATHER:

3/9/95

JOB NO.:

____RIG TYPE: ____ DRLG METHOD: GEOPROBE 722450.21

____ ELEVATION:

3/9/95 1.60

LOCATION: GEOLOGIST: KC

MACDILL AFB _BORING DIA.: _DRLG FLUID:

2 INCHES __ TEMP: NONE

WARM WINDY

NO PID READING - LOW BATTERY

lev	Depth	Pro-	US		S	ample	Sample	Penet		WKSPC	TOTAL	TPH
ft)	(ft)	file	CS	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)		BTEX(ppm)	(ppm)
	_ 1 _			No sample.								
				Dark brown, fine—grained, silty sand FILL.			C					
			SP				0					
		-	, i				Ň					
=	5 -			SAA. Saturated at 4.0 feet bgs. Turning light brown,	,	4-6						
			SW	Light brown, fine— to medium—grained quartz SAND.		ļ			L			
				Well sorted.		}						
							Ν		ļ			
									ļ			
	10-					ļ						
	\vdash		CL	Dark grey, dense, highly plastic CLAY.	ĺ	1	0					
				Bottom of hole at 12 feet bas.	l	l	U		}			
	<u> </u>			2001.00. 00. 10.00 at 12. 1001 byo.			S		<u> </u>			
	-15-								 			
							0		 			
	-					1	l R l		 			···

NOTES

-25

30

bgs - Below Ground Surface

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled SAA - Same As Above SAMPLE TYPE

D - DRIVE

C - CORE

G - GRAB

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS

ENGINEERING SCIENCE, INC.

Sheet 1 of 1

PARSONS ES 3/10/95 BORING NO .: 24MP-7 CONTRACTOR: _ DATE SPUD: **AFC**EE **GEOPROBE** 3/10/95 RIG TYPE: CLIENT: _ DATE CMPL.: 1,15 JOB NO .: 722450.21 DRLG METHOD: GEOPROBE **ELEVATION:** COOL MACDILL AFB BORING DIA .: 2 INCHES LOCATION: TEMP: GEOLOGIST: KC WINDY NONE DRLG FLUID: WEATHER: COMMENTS: BACKGROUND PID = 7.6 ppmv

lev	Depth	Pro-	US		S	omple	Sample	Penet		WKSPC	TOTAL	TPH
(ft)	(ft)	file	cs	Geologic Description	No.	Depth (ft)			PID(ppm)	PtD(ppm)	BTEX(ppm)	(ppm
	- 1 -			No Sample			С					
<u>¥</u>			SP	Brown, fine-grained, silty sand Fill. Subangular to subrounded grains.	「	2-4	ŏ					
=	5 -			Saturated at 3 feet bgs.	一		Ϋ́	:	7.6			
	<u> </u>								7.6	7.6		
				White, fine- to medium-grained quartz SAND.			Ň					
	-10-		SW	Well sorted.			Ų		7.6			
							0					
							Š					
	-15-	હાંચંજ		Light brown, fine— to mediumgrained SAND with sit to sity SAND. Saturated.				;				
			SP	sift to silty SAND. Saturated.			CO		7.6			
							3	:				
	-20-			No sample. Too saturated to stay in sample tube.	4		Ε					
				Bottom of hole at 22 feet bgs.								
	-25-							Ì				
	-30-											
	30-											
	\vdash		1 1		1	1	1 1				 	

NOTES

SAMPLE TYPE

bgs - Below Ground Surface

D - DRIVE

GS - Ground Surface

C - CORE

TOC - Top of Casing

G - GRAB

NS - Not Sampled SAA - Same As Above

▼ Water level drilled

PARSONS

PARSONS ENGINEERING SCIENCE, INC

Denver, Colorado

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

L: \45021\DRAWINGS\BURELOGS\OT-24\24MP7, 01/03/96 at 10:27

Sheet 1 of 1

3/10/95 BORING NO .: 24MP-8 PARSONS ES ____CONTRACTOR: ____ DATE SPUD: AFCEE _____RIG TYPE: GEOPROBE 3/10/95 CLIENT: ____ DATE CMPL: 722450.21 DRLG METHOD: GEOPROBE ELEVATION: 4.26JOB NO.: WARM MACDILL AFB BORING DIA .: 2 INCHES TEMP: LOCATION: CLEAR GEOLOGIST: KC NONE __DRLG_FLUID: WEATHER: COMMENTS: BACKGROUND PID = 7.6 ppmv

	Depth	Pro-	US				Sample			WKSPC	TOTAL	TPH
(ft)	(ft)	file	CS	Geologic Description	No.	Depth (ft)	Туре	Res	PID(ppm)	PtD(ppm)	BTE x(ppm)	(ppm)
	_ 1			No Sample								
				Tour he shows inches of heavy Annual			C					
Ī			SP	Two to three inches of brown topsoil. Dark brown, fine-grained, silty sand FILL. Subangular			0					
_				Dark brown, fine-grained, silty sand FILL. Subongular to subrounded grains. Saturated at 3 feet bgs.	1	3-5	Ν		7.6			
	- 5 -		SW	Light brown, fine—grained SAND with silt. Dark brown sand clasts present.			T		7.6	7.6		
							,		7.0	7.6		
				Bottom of hole at 7 feet bgs								
				·			Ν					
							U					
	-10-						0					
							Ŭ			-,		
						}	S					
							0					
	-15-											
							С					
							0					
							R					
							E					
	-20-						<u> </u>					
	-25-											
	25											
	L											
												
	-30-								·			
	l i				I					L		

NOTES

bgs - Below Ground Surface

GS - Ground Surface

TOC - Top of Casing

NS - Not Sampled

SAA - Same As Above

SAMPLE TYPE

D - DRIVE

C - CORE

G - GRAB

Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC

Sheet 1 of 1

WEATHER:

PARSONS ES BORING NO .: 24MP-9 3/10/95 CONTRACTOR: _ DATE SPUD: AFCEE **GEOPROBE** 3/10/95 CLIENT: RIG TYPE: _ DATE CMPL.: DRLG METHOD: GEOPROBE 722450.21 3.84 JOB NO .: **ELEVATION:** MACDILL AFB 2 INCHES LOCATION: BORING DIA .: TEMP: CLEAR, SUNNY NONE

GEOLOGIST: KC DRLG FLUID: COMMENTS: NO PID READING - BATTERY LOW

Elev	Depth	Pro-	US		S	ample	Sample	Penet		WKSPC	TOTAL	TPH
(ft)	(ft)	file	CS	Geologic Description	No.	Depth (ft)			PID(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
	- 1 -			No sample. FILL								
						}						
_			SP	Dark brown, fine—grained, silty sand FiLL. Subangular to subrounded grains. Saturated at 3.5 feet bgs.	L		0					
T			J'	to some of the state of the state of	,	3~5	Z					
	- 5 -		SW	White to light brown, fine— to medium—grained quartz SAND. Well sorted.		ļ	T			l		
	<u> </u>	1.5	244	No somple.			;					
	-			no sample.	Ì	}						
	-	1 200		SAA with slight hydrocarbon odor.		j	Ν					
	10-		SW				U		 			
	10-				\vdash		Ō					
					2	9-11	Ŭ					
				Bottom of hole at 12 feet bgs.								
							S					
	15-					1						
	<u> </u>			,		i	С					
	 						0					
							Ř					
							E					
	-20-										 	
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	-25-					ļ						
	[23]											
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	-				l	1						

NOTES

bgs - Below Ground Surface

D - DRIVE

GS - Ground Surface

C - CORE

SAMPLE TYPE

TOC - Top of Casing

G - GRAB

NS - Not Sampled

SAA - Same As Above

▼ Water level drilled

GEOLOGIC BORING LOG

Intrinsic Remediation TS

MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC

Sheet 1 of 1

CONTRACTOR: PARSONS ES BORING NO .: 24MP-10 3/11/95 _ DATE SPUD: **AFCEE GEOPROBE** 3/11/95 CLIENT: RIG TYPE: _ DATE CMPL.: DRLG METHOD: GEOPROBE 4.10 JOB NO .: 722450.21 ____ ELEVATION: COOL MACDILL AFB 2 INCHES LOCATION: _BORING DIA.: _ TEMP: KC NONE GEOLOGIST: _DRLG FLUID: _ WEATHER:

COMMENTS: BACKGROUND PID = 7.1 ppmv

Elev	Depth	Pro-	US				Sample			WKSPC		TPH
(ft)	(ft)	file	cs	Geologic Description	No.	Depth (ft)	Туре	Res	PtD(ppm)	PID(ppm)	BTEX(ppm)	(ppm)
	L 1 -			No sample. FILL								
<u>¥</u>	ļ		 	Desire Connected of the good 501. Cohomoutes		 	C			<u> </u>		
=	 		SP	Brown, fine-grained, silty sand FILL. Subangular to subrounded grains. Saturated at 2.5 feet bgs.	1	2-6	0		7.1	7.1		
	 				-		Ν		7.1	<u> </u>		
	 5 -		SW	White to light brown, fine- to medium-grained quartz SAND. Well sorted.			T		7.1	ļ		
				SAA becoming very well sorted.			Ň		7.1			
				Jake Bacaming Vary Wall Saletad.								······
	10-		L				Ŭ		7.1			
				Bottom of hole at 10 feet bgs.			0					
	<u> </u>						U			ļ		
							S			ļ		
	15-						С			<u> </u>		
							Ŏ					
					1							
					ĺ		R					
	20-						Ε					
	<u></u>											
	<u> </u>											
	105		İ									
	-25-											
	<u></u>											
	-30-											
	<u> </u>											
	 											
	—]									

NOTES

SAMPLE TYPE

bgs - Below Ground Surface

D - DRIVE

GS - Ground Surface

C - CORE

TOC - Top of Casing

G - GRAB

NS - Not Sampled

SAA - Same As Above

▼ Water level drilled.

GEOLOGIC BORING LOG

Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS

ENGINEERING SCIENCE, INC.

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-1S

JOB NUMBER 722450.21 INSTALLATION DATE 3/8/95 LOCATION SITE OT-24

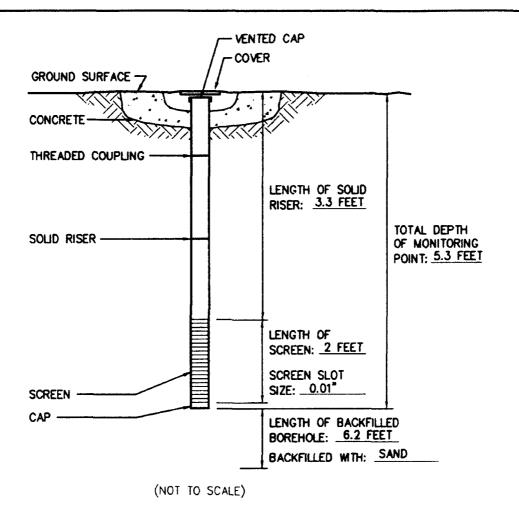
DATUM ELEVATION 5.656 FEET ABOVE MSL WELL CASING ELEVATION 5.576 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH

RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 3.78 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 5.30 FEET

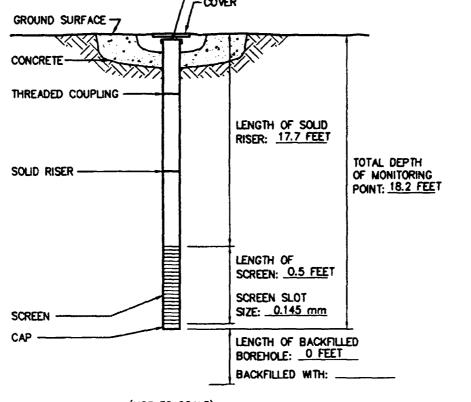
BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEER: 10 SCIENCE, INC.

MONITORING POINT INSTALLATION RECORD JOB NAME ___ MACDILL_ AIR FORCE BASE _ MONITORING POINT NUMBER _ 24MP-1D JOB NUMBER ___722450.21 ___ INSTALLATION DATE 3/8/95 LOCATION SITE OT-24 WELL CASING ELEVATION TUBE WELL POINT DATUM ELEVATION _____ 5.656 FEET ABOVE MSL DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE _SLOT SIZE _D. D ! " SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC VENTED CAP COVER GROUND SURFACE CONCRETE



(NOT TO SCALE)

MONITORING POINT INSTALLATION RECORD

NO WATER LEVEL MEASUREMENTS TAKEN.

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-2S

JOB NUMBER 722450.21 INSTALLATION DATE 3/8/95 LOCATION SITE OT-24

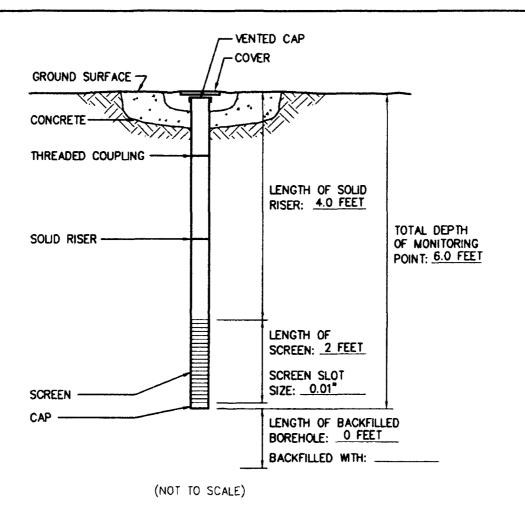
DATUM ELEVATION 5.246 FEET ABOVE MSL WELL CASING ELEVATION 4.943 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH

RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 3.59 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.10 FEET

TOTAL MONITORING POINT DEPTH 6.10 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

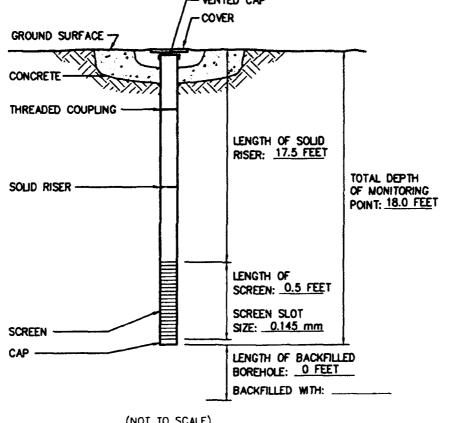
Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS
ENGINEERING SCIENCE, INC.

Denver, Colorado

M: \45021\DRAWNGS\WELLINST\0T24\24MP2S ON 4/24/95 AT 0940

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FORCE BASE _ MONITORING POINT NUMBER 24MP-2D JOB NUMBER 722450.21 INSTALLATION DATE 3/8/95 LOCATION SITE OT-24 DATUM ELEVATION _____ 5.246 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL 0.01" RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC VENTED CAP COVER GROUND SURFACE .



(NOT TO SCALE)

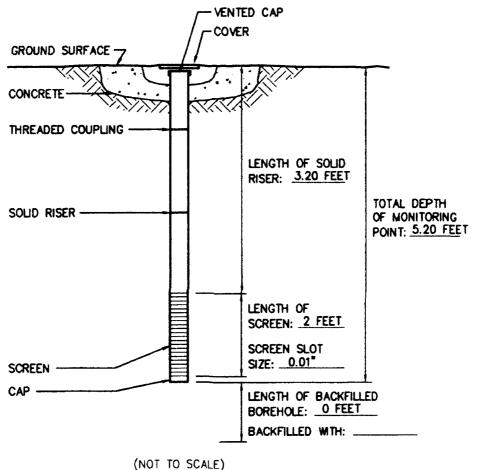
NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-3S JOB NUMBER 722450.21 INSTALLATION DATE 3/9/95 LOCATION SITE OT-24 DATUM ELEVATION 4.167 FEET ABOVE MSL WELL CASING ELEVATION 3.997 FEET AMSL DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 2.7/ FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH _____ FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FORCE BASE JOB NUMBER 722450.21 INSTALLATION DATE 3/9/95 LOCATION SITE OT-24 WELL CASING ELEVATION TUBE WELL POINT DATUM ELEVATION 4.167 FEET ABOVE MSL DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL _ SLOT SIZE _O . O / " RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC VENTED CAP COVER GROUND SURFACE -CONCRETE THREADED COUPLING . LENGTH OF SOUD RISER: 19.5 FEET TOTAL DEPTH SOLID RISER -OF MONITORING POINT: 20.0 FEET LENGTH OF SCREEN: 0.5 FEET SCREEN SLOT SIZE: 0.145 mm SCREEN -CAP -LENGTH OF BACKFILLED BOREHOLE: 0 FEET BACKFILLED WITH: ___ (NOT TO SCALE) MONITORING POINT INSTALLATION RECORD NO WATER LEVEL MEASUREMENTS TAKEN. Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida PARSONS

ENDINEERING SCIENCE, INC.

Denver, Colorado

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-4S

JOB NUMBER 722450.21 INSTALLATION DATE 3/9/95 LOCATION SITE OT-24

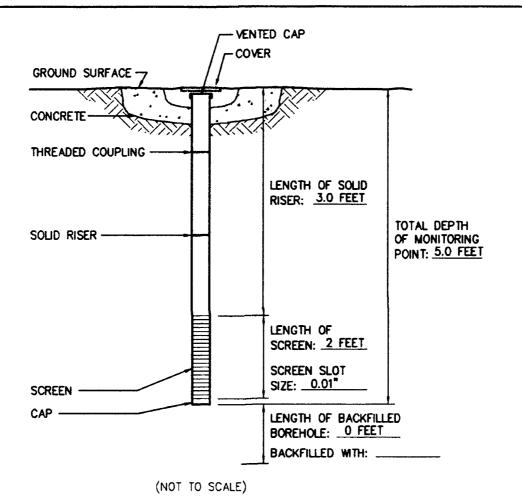
DATUM ELEVATION 5.423 FEET ABOVE MSL WELL CASING ELEVATION 5.379 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH

RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 3,51 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 4.48 FEET

BELOW DATUM.

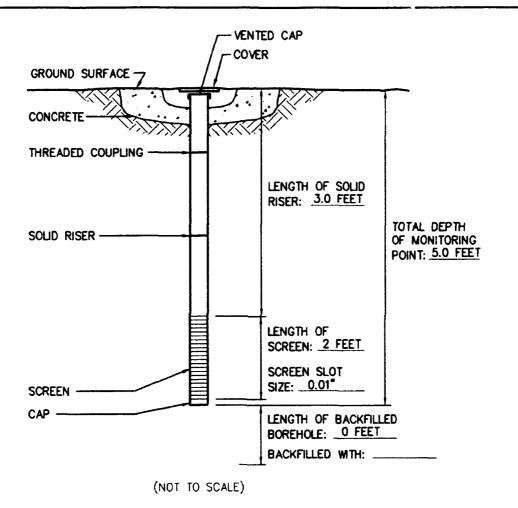
MONITORING POINT INSTALLATION RECORD

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING

ENGINEERING SCIENCE, INC.

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-5S JOB NUMBER 722450.21 INSTALLATION DATE 3/9/95 LOCATION SITE OT-24 DATUM ELEVATION 5.290 FEET ABOVE MSL WELL CASING ELEVATION 5.190 FEET AMSL DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 3.53 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 4.41 FEET

BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

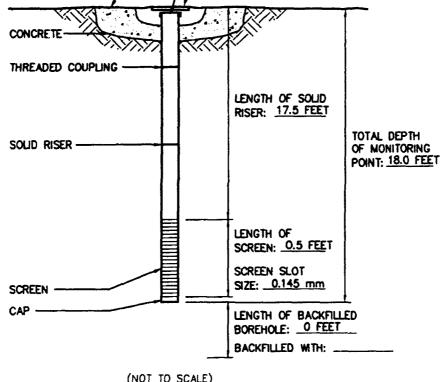
Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS
ENGINEERING SCIENCE, INC.

Denver, Colorado

M: \45021 \DRAWNGS\WELLINST\OT24\24MP5S ON 4/24/95 AT 0955

MONITORING POINT INSTALLATION RECORD JOB NAME __MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-5D 722450.21 ___ LOCATION SITE OT-24 _ INSTALLATION DATE _3/9/95 JOB NUMBER __ WELL CASING ELEVATION TUBE WELL POINT DATUM ELEVATION ____ 5.290 FEET ABOVE MSL DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE _D.DI" RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC VENTED CAP COVER GROUND SURFACE CONCRETE THREADED COUPLING



(NOT TO SCALE)

MONITORING POINT INSTALLATION RECORD

NO WATER LEVEL MEASUREMENTS TAKEN.

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC. Denver, Colorado

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-6S

JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24

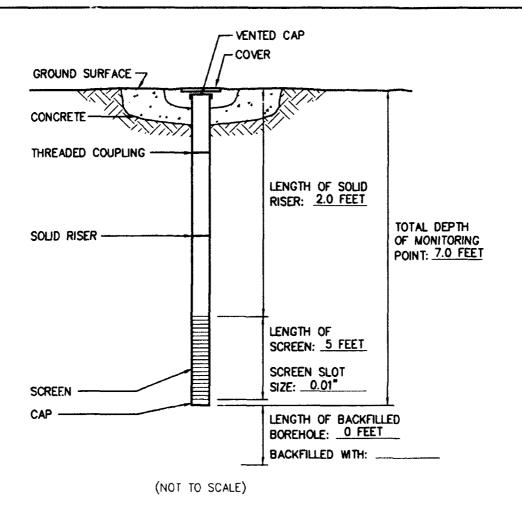
DATUM ELEVATION 4.596 FEET ABOVE MSL WELL CASING ELEVATION 4.496 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH

RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 2.43 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 5.99 FEET

BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

Denver, Colorado

PARSONS ENGINEERING SCIENCE, INC.

M: \45021 \DRAWINGS \WELLINST \OT24 \24MP6S ON 4/24/95 AT 1000

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-7S

JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24

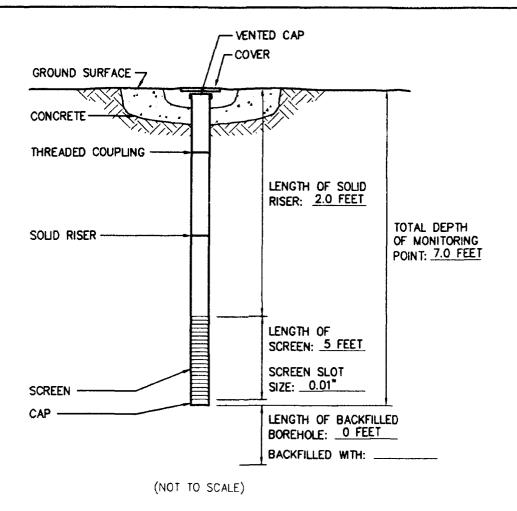
DATUM ELEVATION 4.147 FEET ABOVE MSL WELL CASING ELEVATION 4.000 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH

RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



MONITORING POINT INSTALLATION RECORD

*

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS
ENGINEERING SCIENCE, INC.

Denver, Colorado

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-7D

JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24

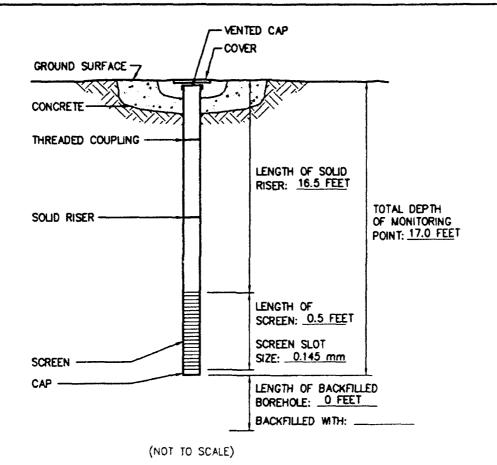
DATUM ELEVATION 4.147 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE O. Q./ "

RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



MONITORING POINT INSTALLATION RECORD

NO WATER LEVEL MEASUREMENTS TAKEN.

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-8S

JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24

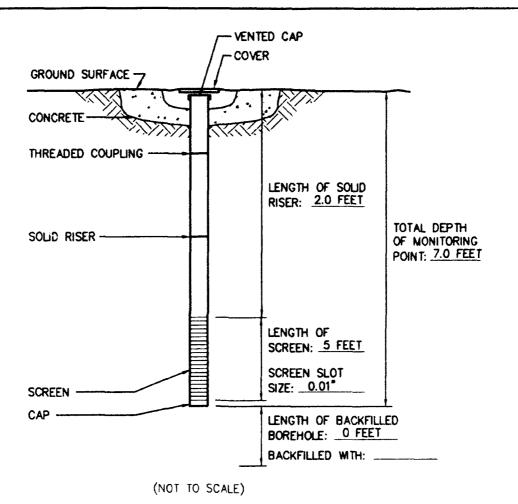
DATUM ELEVATION 4.260 FEET ABOVE MSL WELL CASING ELEVATION 4.154 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH

RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 2.55 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.01 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

M \45021\DRAWNGS\WELLINST\OT24\24MP8S ON 4/24/95 AT 1000

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-8D

JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24

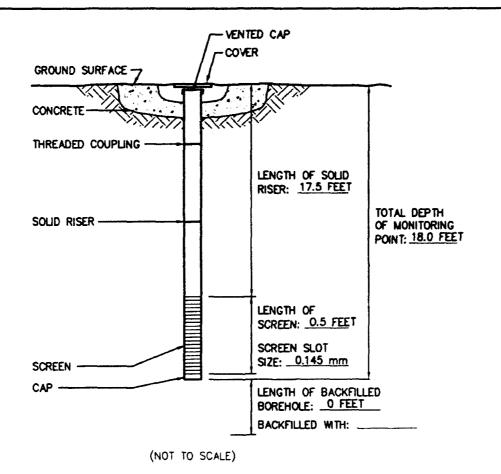
DATUM ELEVATION 4.260 FLET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE O. C 1 ''

RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-9S JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24 WELL CASING ELEVATION 3.596 FEET AMSL DATUM ELEVATION 3.836 FEET ABOVE MSL DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE SCREEN DIAMETER & MATERIAL 0.5 INCH PVC ___ SLOT SIZE __0.01 INCH RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC VENTED CAP **COVER** GROUND SURFACE -CONCRETE THREADED COUPLING . LENGTH OF SOLID RISER: 2.0 FEET TOTAL DEPTH SOLID RISER -

(NOT TO SCALE)

LENGTH OF SCREEN: 5 FEET

SCREEN SLOT SIZE: 0.01"

LENGTH OF BACKFILLED
BOREHOLE: 0 FEET
BACKFILLED WITH: ____

STABILIZED WATER LEVEL 2.25 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.10 FEET BELOW DATUM.

SCREEN -

MONITORING POINT INSTALLATION RECORD

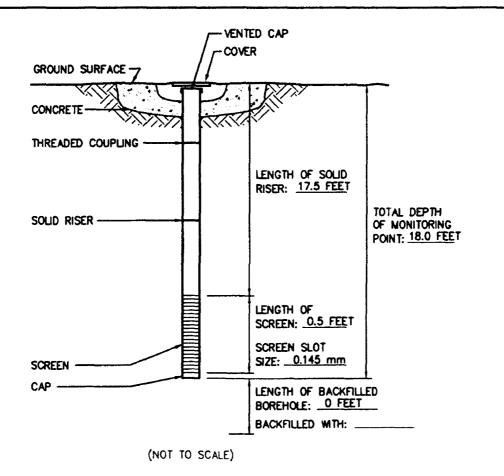
OF MONITORING POINT: 7.0 FEET

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

MONITORING POINT INSTALLATION RECORD JOB NAME NACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-9D JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24 DATUM ELEVATION 3.836 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE & O.1" RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



NO WATER LEVEL MEASUREMENTS TAKEN.

MONITORING POINT INSTALLATION RECORD

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS
ENGINEERING SCIENCE, INC.

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-10S

JOB NUMBER 722450.21 INSTALLATION DATE 3/10/95 LOCATION SITE OT-24

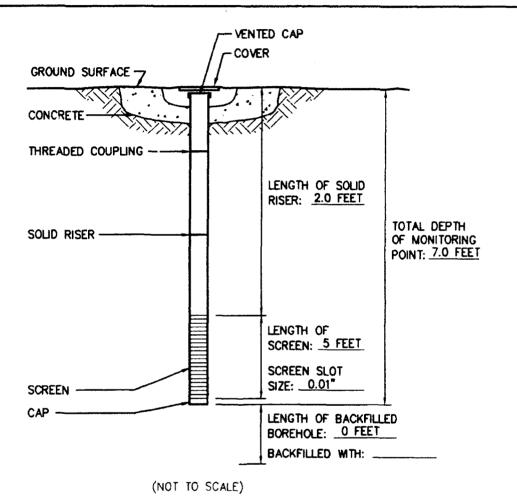
DATUM ELEVATION 4.096 FEET ABOVE MSL WELL CASING ELEVATION 4.196 FEET AMSL

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.5 INCH PVC SLOT SIZE 0.01 INCH

RISER DIAMETER & MATERIAL 0.5 INCH PVC BOREHOLE DIAMETER 2 INCHES

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 2.38 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.12 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24MP-10D

JOB NUMBER 722450.21 INSTALLATION DATE 3/11/95 LOCATION SITE OT-24

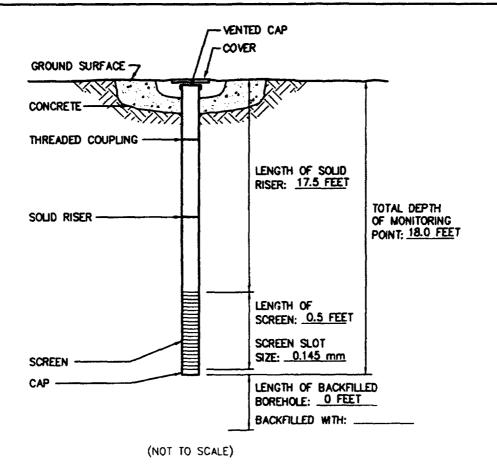
DATUM ELEVATION 4.096 FEET ABOVE MSL WELL CASING ELEVATION TUBE WELL POINT

DATUM FOR WATER LEVEL MEASUREMENT GROUND SURFACE

SCREEN DIAMETER & MATERIAL 0.375 STAINLESS STEEL SLOT SIZE Q. D. I "

RISER DIAMETER & MATERIAL 0.375 INCH TEFLON TUBING BOREHOLE DIAMETER 1 INCH

GEOPROBE CONTRACTOR PARSONS ENGINEERING SCIENCE ES REPRESENTATIVE KC



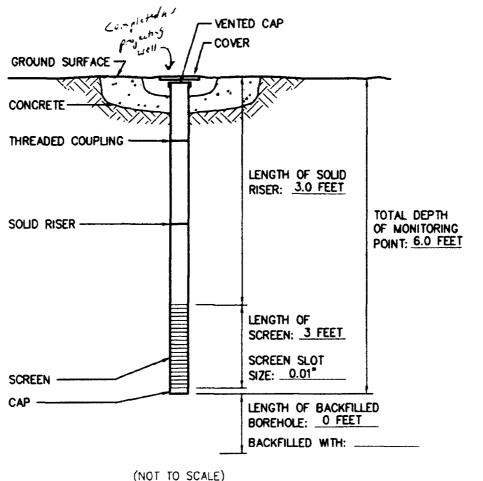
MONITORING POINT INSTALLATION RECORD

NO WATER LEVEL MEASUREMENTS TAKEN.

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24PZ-1S JOB NUMBER 722450.21 INSTALLATION DATE 3/23/95 LOCATION SITE OT-24 DATUM ELEVATION 6.318 FEET ABOVE MSL GROUND SURFACE ELEVATION 4.959 FEET AMSL DATUM FOR WATER LEVEL MEASUREMENT TOP OF CASING SCREEN DIAMETER & MATERIAL 1.5 INCH STEEL SLOT SIZE 0.01 INCH RISER DIAMETER & MATERIAL 1.5 INCH STEEL BOREHOLE DIAMETER 1.5 INCHES GEOPROBE CONTRACTOR HAND DRIVEN ES REPRESENTATIVE KC



STABILIZED WATER LEVEL 6.26 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 6.00 FEET

BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

Site OT-24
Intrinsic Remediation TS
MacDill Air Force Base, Florida

PARSONS ENGINEERING SCIENCE, INC.

M: \45021 DRAWINGS WELLINST \0724 \24PZ1S ON 4/24/95 AT 1005

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FOR BASE _ MONITORING POINT NUMBER 24PZ-1D INSTALLATION DATE 3/23/95 LOCATION SITE OT-24 DATUM ELEVATION _____ 5.540 FEET ABOVE MSL __ GROUND SURFACE ELEVATION 4.959 FEET AMSL DATUM FOR WATER LEVEL MEASUREMENT TOP OF CASING SCREEN DIAMETER & MATERIAL 1.0 INCH GALVANIZED STEEL 0.006" SLOT SIZE ___ RISER DIAMETER & MATERIAL 1.0 INCH GALVANIZED STEEL BOREHOLE DIAMETER 1.0 INCH GEOPROBE CONTRACTOR HAND DRIVEN ____ ES REPRESENTATIVE KC VENTED CAP COVER GROUND SURFACE

CONCRETE THREADED COUPLING -LENGTH OF SOLID RISER: 17.53 FEET TOTAL DEPTH SOLID RISER -OF MONITORING POINT: 18.53 FEET LENGTH OF SCREEN: 1 FOOT SCREEN SLOT SIZE: 0.01* SCREEN -CAP -LENGTH OF BACKFILLED BOREHOLE: 0 FEET BACKFILLED WITH: __

(NOT TO SCALE)

STABILIZED WATER LEVEL 4,71 FEET BELOW DATUM.

TOTAL MONITORING POINT DEPTH 18.53 FEET BELOW DATUM.

MONITORING POINT INSTALLATION RECORD

Site OT-24 Intrinsic Remediation TS MacDill Air Force Base, Florida

PARSONS

ENGINEERING SCIENCE, INC.

SCREEN DIAMETER & MATERIAL TYLE GALV STEEL RISER DIAMETER & MATERIAL TYLE GALV STEEL	NITORING POINT NUMBER 24P2-25 - Sul-95 LOCATION
GROUND SURFACE 7 CONCRETE	•
	TOTAL DEPTH OF MONITORING POINT: 5.5
SCREEN	LENGTH OF SCREEN: 2.5' SCREEN SLOT SIZE: 0.01" LENGTH OF BACKFILLED BOREHOLE: 0 BACKFILLED WITH: 0
(NOT TO SCALE) STABILIZED WATER LEVEL	MONITORING POINT INSTALLATION RECORD

BELOW DATUM. (8/11/15)

TOTAL MONITORING POINT DEPTH 5.5 FEET BELOW DATUM.

SITE OTZY

Intrinsic Remediation TS MacDill Air Force Base, Florida

ENGINEERING-SCIENCE, INC.

Denver, Coloredo

M: \45021\DRAWINGS\WELLINST\94DN1528 @ 6:45

3-20

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24 P2-35 JOB NUMBER 722450.21 INSTALLATION DATE 19-501-95 LOCATION 5 1 T E CT 24 DATUM ELEVATION 3.75 GROUND SURFACE ELEVATION 3.73 DATUM FOR WATER LEVEL MEASUREMENT TOC SCREEN DIAMETER & MATERIAL 1/4" STALDLESS STEEL SCREEN SLOT SIZE 0.01" RISER DIAMETER & MATERIAL 1/4" GALV STEEL BOREHOLE DIAMETER 1.66" CONTRACTOR SUCCESSION ES REPRESENTATIVE Rel SCREEN
GROUND SURFACE COVER CONCRETE THREADED COUPLING LENGT: OF SQUID RISER: 2.5 TOTAL DEPTH OF MONITORING POINT: 5.5
SCREEN SLOT SIZE: 0.01 LENGTH OF SCREEN SLOT SIZE: 0.01 LENGTH OF BACKFILLED BOREHOLE: 0 BACKFILLED WITH: 0
MONITORING POINT INSTALLATION RECORD STABILIZED WATER LEVEL/. 4.7 FEET

STABILIZED WATER LEVEL 1.47 FEET BELOW DATUM. (f)h(f)TOTAL MONITORING POINT DEPTH 5.5 FEET BELOW DATUM.

SITE 6729
Intrinsic Remediation TS
MacDill Air Force Base, Florida

ENGINEERING-SCIENCE, INC.

MONITORING POINT INSTALLATION RECORD JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24P2-3D JOB NUMBER 722450.21 INSTALLATION DATE 20-301-95 LOCATION SITE of 24 DATUM ELEVATION 3.82 GROUND SURFACE ELEVATION 3.75 DATUM FOR WATER LEVEL MEASUREMENT TOC SCREEN DIAMETER & MATERIAL 1 STRENJESS STREET SCREEN SLOT SIZE 0.006" RISER DIAMETER & MATERIAL 1 SALV STREET BOREHOLE DIAMETER 1.25" CONTRACTOR PARSONS BY ES REPRESENTATIVE BOL SONTING		
CONCRETE THREADED COUPLING	TOTAL DEPTH OF MONITORING POINT:	
SCREEN SCREEN SCREEN LENGTH BOREH	n slot	
STABILIZED WATER LEVEL FEET BELOW DATUM. TOTAL MONITORING POINT DEPTH FEET BELOW DATUM.	MONITORING POINT INSTALLATION RECORD SITE OT 24 Intrinsic Remediation TS MacDill Air Force Base, Florida IGNEERING-SCIENCE, INC.	

M: \45021\DRAWINGS\WELLINST\940N1528 @ 6:45 3-20

	1 4 TOU 0500 TO
MONITORING POINT INSTAL	
JOB NAME MACDILL AIR FORCE BASE MO JOB NUMBER 722450.21 INSTALLATION DATE 19	NITORING POINT NUMBER AHFA 45
DATUM ELEVATION 4.43 GRO	
DATUM FOR WATER LEVEL MEASUREMENT TOC	
SCREEN DIAMETER & MATERIAL 14" STATULESS STEEL	Serreu SLOT SIZE O.O.
RISER DIAMETER & MATERIAL 1 1/4" GALV STEEL	ES REPRESENTATIVE Bob Sorvilla
OVI MAOION	S THE RESERVE THE STATE OF THE
VENTEI	D CAP
/_cover	· · · · · · · · · · · · · · · · · · ·
GROUND SURFACE 7	
	X/2/
CONCRETE	
THREADED COUPLING	1
	LENGTH OF SOLID
	RISER: 1.5
SOUD RISER	TOTAL DEPTH
SOUTH AND A SECOND AND A SECOND ASSESSMENT AND A SECOND ASSESSMENT	OF MONITORING POINT: 5.5
	LENGTH OF,
	SCREEN: 2.5
	SCREEN SLOT
	SIZE: 0.01°
	LENGTH OF BACKFILLED
	BACKFILLED WITH:
	Second legely mile.
(NOT TO SCALE)	
	MONITORING POINT
	INSTALLATION RECORD
STABILIZED WATER LEVEL 1.79 cmm	
STABILIZED WATER LEVEL 1.79 FEET BELOW DATUM. (1)1/15)	SITE OT ZY
TOTAL MONITORING POINT DEPTH 5.5 FEET	Intrinsic Remediation TS

M: \45021\DRAWINGS\WELLINST\940N1528 @ 6:45 3-20 MacDill Air Force Base, Florida

ENGINEERING-SCIENCE, INC.

MONITORING POINT INSTALLATION RECORD				
JOB NAME MACDILL AIR FORCE BASE MONITORING POINT NUMBER 24P2-55				
JOB NUMBER 722450.21 INSTALLATION DATE 19				
	SUND SURFACE ELEVATION			
DATUM FOR WATER LEVEL MEASUREMENT TOC	Segret SIOT SIZE 0.01"			
SCREEN DIAMETER & MATERIAL 1 14 STATISHES STEED				
RISTR DIAMETER & MATERIAL TIL GOLY STEEL	/			
CONTRACTOR	ES REPRESENTATIVE DOS DOZVITO			
GROUND SURFACE 7	CAP			
CONCRETE	•			
THREADED COUPLING				
	ENGTH OF SOLID ISER: 2.0 TOTAL DEPTH OF MONITORING			
	ENGTH OF SCREEN: 2.5			
SOREEN ———————————————————————————————————	3ZE: _0.01°			
	ENGTH OF BACKFILLED BOREHOLE:			
	BACKFILLED WITH:			
(NOT TO SCALE)	•			
· •				
	MONITORING POINT INSTALLATION RECORD			
STABILIZED WATER LEVEL 2.16 FEET BELOW DATUM. (/ In 45)	SITE OTZY			
TOTAL MONITORING POINT DEPTH S.S FEET BELOW DATUM.	intrinsic Remediation TS MacDill Air Force Base, Florida			
÷	ENGINEERING-SCIENCE, INC.			

MONITORING POINT DEVELOPMENT RECORD		Page_/_of_/
Job Number: 722450.21 Location Site OT-24 Well Number 24MP - 1D	Job Name: <u>MacDill AFB</u> By <u>KC /MV</u> Measurement Datum <u>TOC</u>	Date
Pre-Development Information	Time (Start): 10:55	
Water Level:	Total Depth of Well	
Water Characteristics		
Color Sandy hardly Odor: None Weak Any Films or Immiscible Mater pH Temp Specific Conductance(µS/cm)	rial_slight ten- perature(°F (d) 75 4°C	
Interim Water Characteristics		
Gallons Removed ~ 7 go	00 0.47.	mg/L
рН		
Temperature (^O F ^O C)		
Specific Conductance(µS/cm)		
Post-Development Information	Time (Finish): 12:35	
Water Level:	Total Depth of Well	
Approximate Volume Removed:		
Water Characteristics		
ColorOdor: None	rialerature(^O F OC)25	
Comments:		
Monitoring Point Type Shallow (/ Deep		

MONITORING POINT DEVELOPMENT RECORD

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MONITORING POINT DEVELOPMENT RECORD Page 1 of 1

Job Number: 722450.21 Location Site OT-24 Well Number 2 4 MP - 1 S	Job Name: MacDill AFB By KC /MV Date 3//4/9 Measurement Datum TOC
Pre-Development Information	Time (Start): 12:37
Water Level:	Total Depth of Well:
Water Characteristics DARK Color BROWN Odor:—None Weak Any Eilms or Immiscible Materia pH Temper Specific Conductance(µS/cm) Smally, mully	Clear Cloudy (No light passing the m) Moderate Strong (gulfum) rature (F C)
Interim Water Characteristics	
Gallons Removed	
На	
Temperature (^O F ^O C)	
Specific Conductance(µS/cm)	
Post-Development Information	Time (Finish): (410
Water Level:	Total Depth of Well
Approximate Volume Removed:	
Water Characteristics	
ColorOdor: None Weak Any Films or Immiscible Materia pHTempe Specific Conductance(µS/cm)	Clear Cloudy Moderate Strong al rature(⁰ F ⁰ C)
Comments:	
Monitoring Point Type Shallow Deep	
Loff well unio	relaped on field note:
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MONITORING POINT DEVELOPMENT RECORD Page of		
Job Number: 722450.21 Location Site OT-24 Well Number 24MP-25	Job Name: MacDill AFB By KC /MV Date 3/14/97 Measurement Datum TOC	
Pre-Development Information	Time (Start): /o:50	
Water Level:	Total Depth of Well:	
Water Characteristics Color	Clear Cloudy (no light passing thun) Moderate Strong (sulfurous) erature(0F06) 25.5	
Interim Water Characteristics		
Gallons Removed 💋 y 😞	D. v. 0.06 MB/L	
рН		
Temperature (^o F ^o C)		
Specific Conductance(µS/cm)		
Post-Development Information	Time (Finish): (1:45	
Water Level:	Total Depth of Well:	
Approximate Volume Removed:		
Water Characteristics		
Color <u>brown</u> Odor: None Weak Any Films or Immiscible Materia pH Tempe Specific Conductance(µS/cm)_	Clear Cloudy (very little light passing thru) Moderate Strong al trature(°F © 25.4	

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Comments:

Monitoring Point Type Shallow / Deep

Page_/ of_/ Job Number: __722450.21 Job Name: MacDill AFB Date 3/14/45 Location Site OT-24 By KC/MV Well Number 24 MP - ZD Measurement Datum TOC Time (Start): /0:00 Pre-Development Information Water Level: Total Depth of Well: Water Characteristics Color durt Clear Cloudy Moderate (sulfwow) None Strong Any Films or Immiscible Material Temperature(OFOC) Specific Conductance(µS/cm) Interim Water Characteristics D.O. 0.40 mg/L × 1.5 god Gallons Removed pΗ Temperature (^OF ^OC) Specific Conductance(µS/cm) Post-Development Information Time (Finish): 10:50 Water Level: Total Depth of Well: Approximate Volume Removed: Water Characteristics Clear Color Cloudy Odor: None Weak Moderate Strong Any Films or Immiscible Material Temperature(OF /C) Specific Conductance(µS/cm) Comments: Monitoring Point Type Shallow/ Deep

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MONITORING POINT DEVELOPMENT RECORD

Job Number: <u>722450.21</u>	Job Name: <u>MacDill AFB</u>	
Location Site OT-24	By KC/MV	Date 3/14/9\
Well Number 24 MP - 3D	Measurement Datum_TOC	
Pre-Development Information	Time (Start): 1427	
Water Level:	Total Depth of Well:	
Water Characteristics		
Color Sandy Odor: None Any Films or Immiscible pH_ Specific Conductance(p	Temperature(°F °CY 25.9	
Interim Water Characteristics		
Gallons Removed	J	
рН		
Temperature (^O F ^O C)		
Specific Conductance(μS/cm)		
Post-Development Information	Time (Finish): 1445	
Water Level:	Total Depth of Well:	
Approximate Volume Removed:		
Water Characteristics		
Color Short Odor: None Any Films or Immiscible pH Specific Conductance(µ	Temperature(°F°C) _ 16.8°C	
Comments: Monitoring Point Type Shallow (Deep)		

D.O Stabilize) & 0.55 mb/L

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MONITORING POINT DEVELOPMENT RECORD Job Number: 722450,21 Job Name: MacDill AFB Location Site OT-24 By KC/MV Well Number 24 MP - 35 Measurement Datum TOC Pre-Development Information Time (Start): 1450 Water Level: Total Depth of Well: Water Characteristics Color DARK BROWN Clear Cloudy None Odor: Weak (Moderate) Strong Any Films or Immiscible Material Temperature(OF 24.9 Specific Conductance(µS/cm) Interim Water Characteristics 24 gal Gallons Removed рΗ Temperature (OF OC) Specific Conductance(µS/cm) 1521 Time (Finish): Post-Development Information Water Level: Total Depth of Well: Approximate Volume Removed: Water Characteristics Color Cloudy Odor: None Weak Moderate Strong Any Films or Immiscible Material 22.2 Temperature(OF Specific Conductance(µS/cm) Comments:

L.O. stabilized @ 027 mg/L

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Monitoring Point Type Shallow / Deep

MONITORING POIN	Page_/ of_/	
Job Number: 722450.21 Location Site OT-24 Well Number 24-mp-45	Job Name: <u>MacDill AFB</u> By <u>KC /MV</u> Measurement Datum_TOC	Date <u>3// < /9</u> 5
Pre-Development Information	Time (Start): 08:45	
Water Level:	Total Depth of Well:	
Water Characteristics		
Any Films or Immiscible Materi pH	Clear Cloudy - muddy Moderate Strong al Conc. erature(OFOC)	
Interim Water Characteristics		
Gallons Removed		
рН		
Temperature (^O F OC)		
Specific Conductance(µS/cm)		
Post-Development Information	Time (Finish): 10:45	
Water Level:	Total Depth of Well:	
Approximate Volume Removed:		
Water Characteristics		
Color Weak Odor: None Weak Any Films or Immiscible Materia pH Tempe Specific Conductance(µS/cm)	rature(°F°C) 238	
Comments:		
Monitoring Point Type Stallow / Deep		

Number: <u>722450.21</u> tion <u>Site OT-24</u> Number <u>744 MP - 5.⊅</u>	Job Name: MacDill AFB By KC /MV Date 3/14/95 Measurement Datum TOC	-
Development Information	Time (Start): 0 800	
Water Level:	Total Depth of Weil:	
Water Characteristics		
Color	Material 900 Temperature(°F °C) 24.0	
im Water Characteristics		
Gallons Removed % 6 8	D.O. 0.35 note (salinit	for
рН	D.O. 0.35 WOLL (solvand) reliand prote ant 6 e 0.2	of D.O.
Temperature (°F°C) 24.0	مبرا (د و 0 · 2	a sirrec .)
Specific Conductance(µS/cm)		,
-Development Information	Time (Finish):	
Water Level:	Total Depth of Well:	
Approximate Volume Removed:		
Water Characteristics		
ColorOdorNone Any Films or Immiscible	Clear Cloudy Weak Moderate Strong Material Temperature(OF OC)	
pn Specific Conductance(μ	S/cm)	
iments:		

MONITORING POIN	IT DEVELOPMENT RECORD	Page of
Job Number: 722450.21 Location Site OT-24	Job Name: <u>MacDill AFB</u> By <u>KC /MV</u>	Date 3/14/9
Well Number 24 MP - 55	Measurement Datum_TOC	
Pre-Development Information	Time (Start):	
Water Level:	Total Depth of Well:	
Water Characteristics		
ColorOdor: None Weak Any Films or Immiscible Materia pH Tempe Specific Conductance(µS/cm)_	erature(⁰ F ⁰ C)	-
Interim Water Characteristics		
Gallons Removed % 2 gel		
pH Temperature (°F (°C) 23.3°C		
Temperature (°F C) 23.3°C		
Specific Conductance(µS/cm)		
Post-Development Information	Time (Finish):	
Water Level:	Total Depth of Well:	
Approximate Volume Removed:		
Water Characteristics		
ColorOdor: None Weak Any Films or Immiscible Materia	Clear Cloudy Moderate Strong al	_
pH Tempe Specific Conductance(μS/cm)_	erature(⁰ F ⁰ C)	
Comments:		
Monitoring Point Type Shallow / Deep		

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MONITORING P	OINT DEVELOPMENT RECORD	Page / of /
Job Number: 722450 21 Location Site OT-24 Well Number 24 mp = 6 5	Job Name: <u>MacDill AFB</u> By <u>KC /MV</u> Measurement Datum_TOC	Date3/15/95"
Pre-Development Information	Time (Start): 57: 50	
Water Level:	Total Depth of Well:	
Water Characteristics		
Color Brown, MUDB Odor: None We Any Films or Immiscible Ma pH_ Tel Specific Conductance(µS/cr	Clear Cloudy————————————————————————————————————	
Interim Water Characteristics		,
Gallons Removed 12 Gallons		,
рН		
Temperature (^O F ^O C)		
Specific Conductance(µS/cm)		
Post-Development Information	Time (Finish): 08:15	
Water Level:	Total Depth of Well:	f
Approximate Volume Removed:		
Water Characteristics		
Color / 15/4 Brown Odor: None Wea Any Films or Immiscible Mate pH_ Tem Specific Conductance(µS/cm	erial 10 Strong perature(°F°C) 206	·
Comments:		•
Monitoring Point Type Shallow 7 Deep		
$\mathcal{D}_{\mathcal{C}}$	O. SIARLIZED AT O.11 mg	/~

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MONITORING POI	Page / of /	
Job Number: 722450.21 Location Site OT-24 Well Number MP - 7D	Job Name: <u>MacDill AFB</u> By <u>KC /MV</u> Measurement Datum <u>TOC</u>	Date 3/14/45
ッサー Pre-Development Information	Time (Start): 1635	
Water Level:	Total Depth of Well:	
Water Characteristics		
Color light sawd word of the sawd word word of the sawd word of the sawd word word word word word word word wo		
Interim Water Characteristics		
Gallons Removed 🔗 1.5 3al		
рН		
Temperature (^O F ^O C)		
Specific Conductance(µS/cm)		
Post-Development Information	Time (Finish): 1710	
Water Level:	Total Depth of Well:	
Approximate Volume Removed:		
Water Characteristics		
Color	Clear Cloudy Moderate Strong al erature(OF (C)	
Comments:		
Monitoring Point Type Shallow Deep		
t. 0. st	abilizat e 0.70 00/L	

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MONITORING POIN	T DEVELOPMENT RECORD Page / of /
Job Number: 722450.21 Location Site OT-24 Well Number 27 MP - 75	Job Name: MacDill AFB By KC /MV Date 3/14/95 Measurement Datum TOC
Pre-Development Information	Time (Start): 71
Water Level:	Total Depth of Well:
Water Characteristics	
Color Βροωρ Sandy Odor: None (Weak Any Films or Immiscible Materia pH Tempe Specific Conductance(μS/cm)	Clear Cloudy (No 115ht passing than) Moderate Strong rature(OF C) 21.2
Interim Water Characteristics	
Gallons Removed 🔬 2 g	
рН	
Temperature (^O F ^O C)	
Specific Conductance(µS/cm)	
Post-Development Information	Time (Finish):
Water Level:	Total Depth of Well:
Approximate Volume Removed:	
Water Characteristics	
Color	Clear Cloudy Moderate Strong ature(F C) 19.4
Comments: Monitoring Point Type Shallow / Deep	
Do. chahalijel	e 0.16 ms/L

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MONITORING POI	NT DEVELOPMENT RECORD Page of /
Job Number: 722450.21 Location Site OT-24 Well Number 14 MP - 8D	Job Name: MacDill AFB By KC /MV Date 3/14/95 Measurement Datum TOC
Pre-Development Information	Time (Start): /530
Water Level:	Total Depth of Well:
Water Characteristics	
Color Muddy Sandy Odor: None Weak Any Films or Immiscible Mater pH Temp Specific Conductance(µS/cm)_	
Interim Water Characteristics	
Gallons Removed 21.55	
рН	
Temperature (^O F ^O C)	
Specific Conductance(µS/cm)	
Post-Development Information	Time (Finish): 1550
Water Level:	Total Depth of Well:
Approximate Volume Removed:	
Water Characteristics	
Colorς ωνής. Odor: None / Weak Any Films or Immiscible Materia pH Tempe Specific Conductance(μS/cm)	Clear Cloudy Moderate Strong al rature(OF (OC)24.2
Comments:	
Monitoring Point Type Shallow Qeep	
	7.) @ 0.17 mg/L
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MONITORING POINT DEVELOPMENT RECORD			Page_/ of_/	
Job Number: Location <u>Sit</u> Well Number		Job Name: <u>MacDill AFB</u> By <u>KC /MV</u> Measurement Datum <u>TOC</u>	Date_3/14/95	
_	ent Information	Time (Start): 1555		
•	Level:	Total Depth of Well:		
Water	Characteristics			
	Color Dark Brown, Odor: None W Any Films or Immiscible M pH Te Specific Conductance(µS/o	aterialemperature(°F C) _ 23.6		
Interim Water (<u>Characteristics</u>			
Gallon	s Removed 225 gal	Q		
ρН				
Tempe	erature (^O F ^O C)			
Specifi	ic Conductance(μS/cm)	e.		
Post-Developn	nent Information	Time (Finish): 1615		
Water	Level:	Total Depth of Well:		
Approx	kimate Volume Removed:			
Water	Characteristics			
	Any Films or Immiscible Ma	emperature(OF(OC) 22-1		
Comments: Monitoring Poir	nt Type Shallow / Deep			

D.O. Stabilizat @ 0.01 mg/L

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MONITORING POINT DEVELOPMENT RECORD $\mathsf{Page} \underline{\; / \;} \mathsf{of} \underline{\; / \;}$ Job Name: MacDill AFB Job Number: 722450.21 Location Site OT-24 By KC/MV Well Number 24 MP 91 Measurement Datum TOC Pre-Development Information Time (Start): 16:30 Water Level: Total Depth of Well Water Characteristics Color Light Brown Cl Odor: None Weak Mi Any Films or Immiscible Material Clear Cloudy Moderate Strong pH______Temperature(OFOC) Specific Conductance(µS/cm)_ Interim Water Characteristics Gallons Removed approximately 2 gallons Temperature (^OF ^OC) Specific Conductance(µS/cm) Time (Finish): 17:00 Post-Development Information Water Level: Total Depth of Well: Approximate Volume Removed:

Color Cloudy
Odor: None Weak Moderate Strong
Any Films or Immiscible Material Moderate Strong
PH Temperature(OFOC) 2 3 4

Comments:

Monitoring Point Type Shallow / Deep

Specific Conductance(µS/cm)

Water Characteristics

for strongered At o.40 mg/l

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MONITORING POI	NT DEVELOPMENT RECORD Page / of /
Job Number: 722450.21 Location Site OT-24 Well Number 24 mp²- 95	Job Name: MacDill AFB By KC /MV Date 3/95 Measurement Datum TOC
Pre-Development Information	Time (Start): / 1:00
Water Level:	Total Depth of Well:
Water Characteristics	
Color CARE Brown Odor: None Weak Any Films or Immiscible Materi pH Tempe Specific Conductance(µS/cm)	Clear Cloudy Moderate Strong ial (/in erature(0F 0C)
Interim Water Characteristics	
Gallons Removed approximate	ly 2 gellong
рН	
Temperature (^O F ^O C)	
Specific Conductance(μS/cm)	
Post-Development Information	Time (Finish): 17:30
Water Level:	Total Depth of Well:
Approximate Volume Removed:	
Water Characteristics	
Color Land Polou n Colorian Odor: None Weak Any Films or Immiscible Material pH Temper Specific Conductance(µS/cm)	Moderate Strong Steen present ature(FC) 20.7°C
Comments:	
Monitoring Point Type Shallow / Deep	
No st	ABILIZED @ 0.23 mg/l

Description Description	MONITORING	POINT DEVELOPMENT RECORD	Page / of/
Pre-Development Information Time (Start): 2 oc (1/6 or)	Job Number: 722450.21 Location Site OT-24	By KC /MV	Date 3/13/95
Water Level: Water Characteristics Color		-	
Water Characteristics Color None Weak Moderate Strong Any Films or Immiscible Material PH Temperature(PF C) Specific Conductance(µS/cm) Interim Water Characteristics Gallons Removed approximate 2 gallons pH Temperature (PF C) Specific Conductance(µS/cm) Post-Development Information Water Level: Total Depth of Well: Approximate Volume Removed: Water Characteristics Color Lear Weak Moderate Strong Any Films or Immiscible Material PH Temperature(PF C) 73 Z Specific Conductance(µS/cm) Comments: Comments: Comments: Monitoring Point Type Shallow / Deep	Pre-Development Information	Time (Start): 2:00 (14 0	·)
Color None (Neak Moderate Strong Any Films or Immiscible Material PH Temperature (OF OC) Specific Conductance (µS/cm) Interim Water Characteristics Gallons Removed approximately 2 gallous pH Temperature (OF OC) Specific Conductance (µS/cm) Post-Development Information Time (Finish): 2:30 Water Level: Total Depth of Well: Approximate Volume Removed: Water Characteristics Color Vear Moderate Strong Any Films or Immiscible Material pH Temperature (OF OC) 23 2 Specific Conductance (µS/cm) Comments: Monitoring Point Type Shallow / Deep	Water Level:	Total Depth of Well:	
Any Films or Immiscible Material pH	Water Characteristics		
Gallons Removed α ρροσιού Δ 2 9 α θ σ 2 3 α θ σ 2 9 α θ σ 2 3 α θ	Any Films or Immiscible N pH	Material /o- Temperature(OFOC)	-
pH Temperature (^O F ^O C) Specific Conductance(μS/cm) Post-Development Information Time (Finish): 2:3 Water Level: Approximate Volume Removed: Water Characteristics Color Vone Weak Moderate Strong Any Films or Immiscible Material Moderate Strong Any Films or Immiscible Material PH Temperature(^O F ^O C) 2:3:2 Specific Conductance(μS/cm) Comments: Monitoring Point Type Shallow / 10 Peep	Interim Water Characteristics		
Temperature (°F°C) Specific Conductance(µS/cm) Post-Development Information Time (Finish): 2:3c Water Level: Total Depth of Well: Approximate Volume Removed: Water Characteristics Color	Gallons Removed approxim	adely 2 gallons	
Specific Conductance(µS/cm) Post-Development Information Water Level: Approximate Volume Removed: Water Characteristics Color Clear Cloudy Odor: None Weak Moderate Strong Any Films or Immiscible Material pH Temperature(°F °C) 2 3 2 Specific Conductance(µS/cm) Comments: Monitoring Point Type Shallow / Deep	рН		
Water Level: Approximate Volume Removed: Water Characteristics Color Clear Clear Cloudy Odor: Wone Weak Moderate Strong Any Films or Immiscible Material pH Temperature(0F 0C) 2 3 2 Specific Conductance(µS/cm) Comments: Monitoring Point Type Shallow / Deep	Temperature (^O F ^O C)		
Water Level: Approximate Volume Removed: Water Characteristics Color Clear Cloudy Odor: None Weak Moderate Strong Any Films or Immiscible Material PH Temperature(°F °C) 7 3 2 Specific Conductance(µS/cm) Comments: Monitoring Point Type Shallow / Deep	Specific Conductance(μS/cm)		
Approximate Volume Removed: Water Characteristics Color	Post-Development Information	Time (Finish): 2:30	
Water Characteristics ColorClear_Cloudy Odor: Wone	Water Level:	Total Depth of Well:	
Color	Approximate Volume Removed:		
Odor: None Weak Moderate Strong Any Films or Immiscible Material pH Temperature(°F °C) Z 3 Z Specific Conductance(µS/cm) Comments: Monitoring Point Type Shallow / Deep	Water Characteristics		
Monitoring Point Type Shallow / Øeep	Odor: None V Any Films or Immiscible N pH T	Veak Moderate Strong Material CO Z 3 Z Temperature(OF OC) Z 3 Z	-
	Comments:		
Du slab. 1, red at 0.23 mg/l	Monitoring Point Type Shallow / Deep		
	0.	o stabilized at 0.23 mo	1/1

MONITORING POINT DEVELOPMENT RECORD Page_/ of / Job Number: 722450.21 Job Name: MacDill AFB Location Site OT-24 By KC/MV Well Number 24-mp 105 Measurement Datum TOC Time (Start): 2:30 Pre-Development Information Total Depth of Well: Water Level: Water Characteristics Clear Cloudy Color doek Brown Weak Odor: None Moderate Any Films or Immiscible Material___ No Temperature(OFOC) Specific Conductance(µS/cm) Interim Water Characteristics Gallons Removed approximately 2 gill рΗ Temperature (OF OC) Specific Conductance(µS/cm) Post-Development Information Time (Finish): 3:30 Total Depth of Well: Water Level: Approximate Volume Removed: Water Characteristics Color lights Bround Chour Odor: None Meak Moderate Any Films or Immiscible Material___ pH______Temperature(°F °C) 20.3

Comments:

Monitoring Point Type Shallow / Deep

Specific Conductance(µS/cm)

D.O. SIADILIZED & 0.28 mg/

MONITORING POIN	T DEVELOPMENT RECORD Page_/ c	of <u>/</u>
Job Number: 722450.21 Location Site OT-24 Well Number 2472-10	Job Name: _MacDill AFB By _KC /MV Date/23/ Measurement Datum _TOC	195
Pre-Development Information	Time (Start): 5:30	
Water Level: 4.10 by S	Total Depth of Well: 18.50 ね。	55
Water Characteristics		
Color	ature(⁰ F ⁰ C)	
Interim Water Characteristics		
Gallons Removed		
На		
Temperature (^O F ^O C)		
Specific Conductance(µS/cm)		
Post-Development Information	Time (Finish): 6:00	
Water Level:	Total Depth of Well:	
Approximate Volume Removed: 64 all	ing	
Water Characteristics		
Color Claw Julia Odor: Mone Weak Any Films or Immiscible Material pH Tempera Specific Conductance(µS/cm)	Clear Cloudy Moderate Strong ture(FOC)	
Comments: Tast pump rate, Monitoring Point Type Shallow / Deep	developed by volume	

MONITORIN	Page / of !	
Job Number: 722450.21 Location Site OT-24 Well Number 24 P2-15	Job Name: MacDill AFB By KC /MV Measurement Datum_TOC	Date 3/2 3/95
Pre-Development Information	Time (Start): 26 : 70	
Water Level:	Total Depth of Well:	
Color da et Odor: None Any Films or Immisci pH Specific Conductance	Clear Cloudy mudby Weak Moderate Strong ble Material 12 Temperature(°F°C)	-
Interim Water Characteristics		
Gallons Removed		
рН		
Temperature (^o F ^o C)		
Specific Conductance(µS/cm)	
Post-Development Information	Time (Finish):	
Water Level:	Total Depth of Well:	
Approximate Volume Remove	ed: b galling	
Water Characteristics Color	Moderate Strong ble Material Temperature(OFOC)	
Comments: Jewloped	by volume, fast purp	rate
Monitoring Point Type Shallow / Dee		

FIGURE 3.7

MONITORING POINT DEVELOPEMENT RECORD

Intrinsio Remediation T6
MacDill Air Force Bass, Florida

PARSONS
ENGINEERING SCHNES, INC.
Denver, Celoredo

MON:TORING	POINT DEVELOPMENT RECORD Page_of_
Job Number: 722450.21	Job Name: Mac Dril Aza Force Base 7-21-95
Wolf Number 24 P2 - 30	Measurement Deturn TOC
Pre-Development Information	Time (Start): 0730
Water Level: 0.0	Total Depth of Well:
Water Characteristics	
Color Black Odor: None Any Firms or Immiscible pH 678 Specific Conductance(s	Temperature(F (C) 16.7
Interim Water Characteristics	
Gallons Removed 2	
pH 6.82	
Temperature (°F ©) 26.5	
Specific Conductance(µS/cm) 50 = 2.63 Post-Development information	15.12 Time (Finish): $a 9 \infty$
Water Level: 0.0	Total Depth of Well: 19
Approximate Volume Removed	: : 5
Water Characteristics	
Color LTGUT BROWN Odor: None Any Films or Immiscible pH 6.77 Specific Conductance Comments: WELL/PTEZO COES DRY	Weak Moderate Strong lo Material Nouse Temperature("F"C) 11.4 [US/cm] 13.9
•••••••••••••••••••••••••••••••••••••••	FIGURE 3.7
	MONITORING POINT DEVELOPEMENT RECORD
	Intrinsic Remediation TS MacDill Air Force Base, Florida PARSONS ENGINEERING SCIENCE, INC.
•	Denver, Celorado

MONITORING	POINT DEVELOPMENT RECORD Page_of_
Job Number: 722450.21	Job Name: Mac DILL Flag Force Base Date 1-20-95
Well Number 24P2-35	Measurement Detum Toc
Pre-Dentilopment Information	Time (Start): 1330
Water Level: 0.0	Total Depth of Well: 5.5
Water Characteristics	
Color BROWL Odor: None Any Films or Immiscible pH 6.74 Specific Conductance(u	Temperature (F (C) 27.1
Interim Water Characteristics	
Galons Removed 5	
EH 6.97	
Tamperature (PF © 28.4	
Specific Conductance(µS/cm)	4.15
Post-Development Information	Time (Finish): 1435
Water Level: 0.0	Total Depth of Well: 5.5
Approximate Volume Removed	:9
Water Characteristics	
Color Lycur Back Odor: (None) Any Films or Immiscible pH 1.08 Specific Conductance() DO = 1.54	Weak Moderate Strong Material NowE Temperature(°F (°C) 28.1
Comments:	
	FIGURE 3.7
	MONITORING POINT DEVELOPEMENT RECORD
	intrinsic Remediation TS MacDill Air Force Base, Florida
	PARSONS

Denver, Colorado

MONITORING POL	NT DEVELOPMENT RECORD Pageof
Job Number 722450.21	JOB Name: Mac Dry Aze Force Base
Location Well Number 24 P2 - 45	Messurement Dotum To C
Pra-Development Information	Time (Start): 1710
Water Level: 0.30	Total Depth of Well: 5,5
Water Characteristics	
Color Black Odor: (None) Weak Any Farrs or Immiscible Mater pH	tel Nowe
Interim Water Characteristics	
Gallons Removed 4	
pH 6.74	
Temperature (°F © 17.9	
Specific Conductance(µS/cm) 15.92 Do = 0.89	
Post-D-velopment Information	Time (Finish): 1800
Water Level: 0.30	Total Depth of Well: 5.5
Approximate Volume Removed: 8	·
Water Characteristics	
	Clear Cloudy Moderate Strong a) your Prature F C 2X.2
Comments:	· ·
	FIGURE 3.7
	Monitoring Point Developement Record
·	intrinsic Remediation TS
	MacDIII Air Force Base, Florida
•	PARSONS ENGERGERING SCIENCE, INC.
(Adam) * Thurses acquires	Denver, Coloreda . '

MONITORING	POINT DEVELOPMENT RECORD Page_of_
Job Number 722450.21	Job Name: Mac DILL ATA FORCE Base By Date 7-20-95
Well Number 24 PZ-55	Measurement Detum_ToC
Pro-Devi-Jooment Information	Time (Start): 1445
Water Level 0.3	Total Depth of Well: 5.5
Water Characteristics	
Color Black Odor: Rone Any Films or Immiscible pH 6.48	Clear Cloudy Weak Moderate Strong Material Would Temperature OF CO 19.3
Specific Conductance()	18/cm) 13.46
Do = 0.46	
Gations Removed	
pH 6.38	•
Temperature (°F 66) 28.3	
Specific Conductance(µS/cm)	9-89
Do = 1.07 Post-Orrelopment Information	Time (Finish): 1640
Water Level: 0.3	Total Depth of Well: 5.5
Approximate Volume Removed	!: 13
Water Characteristics	
Color Light Beau Odor: (None) Any Films or Immiscible pH 6.40 Specific Conductance(Weak Micderate Strong Material No. No. Temperature(F (O) 28.
Do = 0.90	parcin <u>j 18.90</u>
Comments:	
	FIGURE 3.7
	MONITORING POINT DEVELOPEMENT RECORD
	Intrinsic Remediation TS MacDIII Air Force Base, Florida
	PARSONS SCIENCE, INC.

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Denver, Colorado

SAMPLING	LOCATION MacDill AFB Site OT-24
SAMPLING	DATE(S) March 1995

GROUND V	VATER SAMPLING RECORD - MONITORING WELL. $(-\frac{1}{2} \frac{\partial f}{\partial x}) \stackrel{?}{>} \frac{\partial f}{\partial x}$	/
DATE AND SAMPLE CO	DR SAMPLING: [] Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/2 4/95, 19 4/95 a.m.g.m. DLLECTED BY: MV + KC of ES 11 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	(number)
MONITORI	NG WELL CONDITION:	
	[] LOCKED: [] UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: C:CC	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	And the second s
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH // '	FT BELOW DATUM
2 (X)	Measured with: Oil/ Water Interface Probe	1 1. DELOW DATE
	WATER DEPTH 7.73 -> 7.4 Measured with: Water Level Probe	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance:	April 10, 5 poss
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water devel (rose - fell - no change) Water odors: Other comments:	

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Ground Water	r Sampling Re	cord - Monitoring	g Well No. 💎 🎢 🦠	(Cont'd)		
5 [x]	SAMPLE EX	XTRACTION ME	етнор:			
		I Bailer made	of:			
		[] Other, descr	ibe:			
		Sample obtained	is [x] GRAB; []	COMPOSITE SAMPLE		
6 [x]	ON-SITE M	EASUREMENTS	i:			
		Temp:	。C	Measured with: Orion Instrument		
		pH: 6.41	91 ×10 1.5/c.	Measured with:		
		Conductivity:	91×10 115/cm	Measured with:		
		Dissolved Oxyge	11. <u>(, ; ; ; ; , , , , , , , , , , , , , , ,</u>	Measured with Offen management		
			-56.8 in	Measured with:		
		Salinity:		Measured with:		
		Nitrate:		Measured with:		
		Sulfate:		Measured with:		
		Other:	and the second s	Measured with.		
		onter:				
7[]	SAMPLE CO	ONTAINERS (ma	tterial, number, size):	TORIH ALICAS		
8[]	ON-SITE SA	MPLE TREATM	IENT:			
		Filtration:	Method	Containers:		
	t j	i initiation.	Method	Containers:		
				Containers:		
	[]	Preservatives add				
				2		
				Containers: Containers:		
				Containers:		
			Method	Containers:		
			Wediod	Committee and the committee an		
9[]	CONTAINER HANDLING:					
	L	[] Container	Sides Labeled Lids Taped s Placed in Ice Chest	·		
10[]	OTHER CO	MMENTS:				
()		OTHER COMMENTS:				

SAMPLING LOCATION <u>MacDill AFB Site OT-2</u>4 SAMPLING DATE(S) <u>March 1995</u>

GROUND V	VATER SAMPLING RECORD - MONITORING WELL, $120.29 - 2$	· · · · · · · · · · · · · · · · · · ·
D.C. A.C.C.N.I.C.	OD CAMBURY: 1/Months Compliant 1 1 Control Control	(number)
REASON FO	OR SAMPLING: [4] Regular Sampling; [1] Special Sampling;	
SAMPLE CO	TIME OF SAMPLING: 3/24/4 , 1945 30 5 4 m pm OLLECTED BY: MOKE OF ES P	
WEATHER	Secretaria Market	
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
DATIONITE	K WATER DELITE MENDONEMENT (Describe). Top of Well Casars	
MONITORI	NG WELL CONDITION:	
	[] LOCKED: [4 UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: Condition	Aprelia de la composición dela composición de la composición de la composición de la composición de la composición de la composición dela composición de la composición de la composición de la composición dela composición dela composición de la composición de la composición de la composición de la composición de la composición dela composición de la composición dela composición dela compo
	INNER PVC CASING CONDITION IS: Corest	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1[x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and	d Agatama
ı (X)	Items Cleaned (List): All Equipment used in sampling	
	nems cleaned (List). An Equipment used in Sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
	Measured with: Oil/ Water Interface Probe	
	WATER DEBTH	ET DELOUIDATINA
	WATER DEPTH	FT. BELOW DATUM
	Measured With, Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
2 []	Appearance: 1 See / will have	
	Appearance: 1 har further Odor: norther de	
	Other Comments:	
4 [x]	WELL EVACUATION:	
	Method: prosecutive Volume Removed: 2.5000 mind	
	Volume Removed: 25560 mind	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no change)	
	Water odors: Middle See	1215
	Other comments:	

	EEXTRACTION N	METHOD:			
	[x] Pump, typ	oe: Peristaltic Pump			
	[] Other, des	scribe:			
	Sample obtaine	ed is [x] GRAB; [J COMPOSITE SAMPLE		
ON-SITI	SITE MEASUREMENTS:				
	Temp: 70	ς,Ψ ° _C	Measured with: Orion Instrument		
	pH:	>7	Measured with:		
	Conductivity:	13340	Measured with:		
	Dissolved Oxy	/gen: 0.06	Measured with: Orion Instrument		
	Redox Potentia	al: <u>-82.5</u>	Measured with:		
	Salinity:		Measured with:		
	Nitrate:		Measured with:		
	Sulfate:		Measured with:		
	Ferrous Iron:		Measured with:		
	Other:				
			ce): 1- fixed from ded		
	E SAMPLE TREAT		TSH Sent Promo del		
	E SAMPLE TREAT	FMENT: Method	Containers:		
ON-SITE	E SAMPLE TREAT	TMENT: Method Method	Containers: Containers:		
ON-SITE	E SAMPLE TREAT	TMENT: Method Method	Containers:		
ON-SITE	E SAMPLE TREAT	FMENT: Method Method Method	Containers: Containers:		
on-site	E SAMPLE TREAT Filtration:	FMENT: Method Method Method Method	Containers: Containers: Containers:		
on-site	E SAMPLE TREAT Filtration:	FMENT: Method Method Method Method Method Method	Containers: Containers: Containers: Containers:		
on-site	E SAMPLE TREAT Filtration:	FMENT: Method Method Method added: Method Method Method	Containers: Containers: Containers: Containers: Containers:		
on-site	E SAMPLE TREAT Filtration:	Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers:		
ON-SITE	E SAMPLE TREAT Filtration:	Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:		
ON-SITE	Filtration: Preservatives a	Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:		
ON-SITE	Filtration: Preservatives a	Method Me	Containers: Containers: Containers: Containers: Containers: Containers:		
ON-SITE	Filtration: Preservatives a INER HANDLING [] Contains	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:		
on-site	Filtration: Preservatives a INER HANDLING [] Contains	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:		
ON-SITE	Filtration: Preservatives a NER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:		

SAMPLING	LOCATION MacDill AFB Site OT-24
SAMPLING	DATE(S) March 1995

GROUND W	VATER SAMPLING RECORD - MONITORING WELL MD 24 -	somw 2
		(number)
REASON FO	OR SAMPLING: [Regular Sampling; [] Special Sampling;	
	TIME OF SAMPLING: 3/3/ , 1995 /6:00a.m/m)	
SAMPLE CO	OLLECTED BY MYTKC of ES Demy	
WEATHER:	Clandy	
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
NONUTORE	NO WELL CONDITION.	
MONITORI	NG WELL CONDITION: [1] LOCKED: [1] UNLOCKED	
	A LONG TO THE PARTY AND ADDRESS TO	
	STEEL CASING CONDITION IS:	
	INNER PVC CASING CONDITION IS:	
	WATER DEPTH MEASUREMENT DATUM (187- IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	MONITORING WELL REQUIRED REPAIR (describe):	
	[] MONITORING WELL REQUIRED REPAIR (describe).	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, an	d Acetone
. []	Items Cleaned (List): All Equipment used in sampling	
2 [x]		FT. BELOW DATUM
	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH MM.	FT. BELOW DATUM
	W. C. C. C. C. C. C. C. C. C. C. C. C. C.	F1. BELOW DATUM
	Measured with: Water Level Probe	
2 (1	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
3 [x]	Appearance Llew	
	Odor:ulak	
	Other Comments:	
	Other Comments.	
4 [x]	WELL EVACUATION:	
ام) ۳	Method: Periglalfic	
	Volume Removed: ~ Zgu lons	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no change)	
	Water odors:	
	Other comments: name part	culatec
	Present	

Ground Water	r Sampling Record - Monitoring Well No
5 [x]	SAMPLE EXTRACTION METHOD:
	[] Bailer made of: [x] Pump, type: Peristaltic Pump [] Other, describe:

I	SAMPL	E EXTRACTION I	METHOD:	
		[] Bailer m	ada of:	
		[] Other, de	scribe:	
		Sample obtain	ned is [x] GRAB; []	COMPOSITE SAMPLE
хJ	ON-SITI	E MEASUREMEN	TS:	
		Temp:	°C	Measured with: Orion Instrument
		pH:		Measured with:
		Conductivity:		Measured with:
		Dissolved Oxy	ygen:	Measured with: Orion Instrument
		Redox Potenti	al:	Measured with:
		Salinity:		Measured with:
		Nitrate:		Measured with:
		Sulfate:		Measured with:
		Ferrous Iron:		Measured with:
]	SAMPLI	E CONTAINERS (material, number, size)	= FIFEH
•				7- TeH (MS/MSD)
1	ON-SITE	E SAMPLE TREA	TMFNT:	
,		JOHNI EE TREM		
	[]	Filtration:		Containers:
				Containers:
			Method	Containers:
	[]	Preservatives :	added:	
			Method	Containers:
]		INER HANDLING):	
		Contain	er Sides Labeled	
		<i>y</i>	er Lids Taped	
			ers Placed in Ice Chest	•
1	OTUEP	COMMENTS		
]	OTHER	COMMEN 19:		
	***********		·	

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND V	VATER SAMPLING RECORD - MONITORING WELL _ 14/ 24 - 3	
REASON FO DATE AND SAMPLE CO WEATHER:	OR SAMPLING: [] Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/2 4/95 , 19 14:50 a.m./g/pr OLLECTED BY: MAY/KC of ES 1/2:1:00	(number)
MONITORI	NG WELL CONDITION:	
oord	[] LOCKED: X UNLOCKED	
	WELL NUMBER (IS IS NOT) ADDADENT	
	STEEL CASING CONDITION IS: Con	
	INNER PVC CASING CONDITION IS: C'ead	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
	[] MOMTORING WEEK REQUIRED RELATINGUESCHOO).	
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, an Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
	/	
	Measured with: Water Level Probe	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: (\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors:	
	Other comments:	

m \forms\gwsample.doc Page 1 of 2

SAMPI	E EXTRACTION 1	METHOD:	
	[] Bailer ma	ide of:	
	[x] Pump, ty	pe: Peristaltic Pump	
	Sample obtain	ed is [x] GRAB; [] COMPOSITE SAMPLE
ONISE	E MEASUREMEN	TC.	
():\Ji i		z. ° _ C	Measured with: Orion Instrument
	nH: 2 2		Measured with:
	Conductivity:	112 110	Measured with:
	Dissolved Oxy	ygen: 0.02	
		al: <u>772</u>	Measured with:
	Salinity:	ar	Measured with:
	Mitrata:		Measured with:
	Nitrate:		Measured with:
	Sulfate:		Measured with:
	Ferrous Iron:		Micasured with
SAMPI	LE CONTAINERS (material, number, siz	e): 1- rery Arms, Ruell
SAMPI	LE CONTAINERS (material, number, siz	e): 1- mery Across Buell
SAMPI	E CONTAINERS (material, number, siz	e): 1- mery Asims, Ruell
	E CONTAINERS (e): 1- mery Across, Really
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		TMENT:	Containers:
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ON-SIT	E SAMPLE TREA	TMENT: Method Method Method	Containers: Containers:
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m.\forms\gwsample doc Page 2 of 2

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND W	ATER SAMPLING RECORD - MONITORING WELL	10 24-4
DATE AND SAMPLE CO	ATER SAMPLING RECORD - MONITORING WELL	
MONITORIN	WELL CONDITION: [] LOCKED: WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: Cond	
	INNER PVC CASING CONDITION IS: Cook	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	Τ
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2Q Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	
	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH 6.6.1	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: (ew- / yellow Odor: // // // // // // // // Other Comments:	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: Other comments:	

Bailer made of		IPLE EXTRACTION			
Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS. Temp. 24.00 C Measured with: Orion Instrument Measured with: Conductivity: 737 Mc Measured with: Measured with: Dissolved Oxygen: 2.70 Measured with: Measured with: Nitrate: Measured with: Measured with: Measured with: Salinity: Measured with: Measured with: Measured with: Sulfate: Measured with: Measured with: Other: SAMPLE CONTAINERS (material, number, size) ON-SITE SAMPLE TREATMENT: [] Filtration: Method Containers: Met		[] Bailer m	ade of:		and the same of th
Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS. Temp: 24.0 ° C		[X] Pump, ty	pe: Peristattic Pump escribe:		
Salmly: Nitrate: Sulfate: Measured with: Sulfate: Measured with: Measured with: Ferrous Iron: Other: SAMPLE CONTAINERS (material, number, size)		Sample obtain	ned is [x] GRAB; [] COMPOSITE SAMPLE	
Salmly: Nitrate: Sulfate: Measured with: Sulfate: Measured with: Measured with: Ferrous Iron: Other: SAMPLE CONTAINERS (material, number, size)	ON-	SITE MEASUREMEN	ITS:		
Salmly: Nitrate: Sulfate: Measured with: Sulfate: Measured with: Measured with: Ferrous Iron: Other: SAMPLE CONTAINERS (material, number, size)		Temp: 2	4.0° C	Measured with: Orion Instrument	
Salmly: Nitrate: Sulfate: Measured with: Sulfate: Measured with: Measured with: Ferrous Iron: Other: SAMPLE CONTAINERS (material, number, size)		pH: ن	.50	Measured with:	
Salmly: Nitrate: Sulfate: Measured with: Sulfate: Measured with: Measured with: Ferrous Iron: Other: SAMPLE CONTAINERS (material, number, size)		Conductivity:	139 NC 45	/. Measured with:	
Salmly: Nitrate: Sulfate: Measured with: Sulfate: Measured with: Measured with: Ferrous Iron: Other: SAMPLE CONTAINERS (material, number, size)		Dissolved Ox	ygen: C.O.	Measured with: Orion Instrument	
Salmly: Nitrate: Sulfate: Measured with: Sulfate: Measured with: Measured with: Ferrous Iron: Other: SAMPLE CONTAINERS (material, number, size)		Redox Potenti	al: 7 7	Measured with:	
Nitrate: Measured with: Measured with: Measured with: Measured with: Other: SAMPLE CONTAINERS (material, number, size) ()		Salinity:		Measured with:	
Sulfate: Measured with: Ferrous Iron: Measured with: Other: SAMPLE CONTAINERS (material, number, size)		Nitrate:		Measured with:	
SAMPLE CONTAINERS (material, number, size) SAMPLE CONTAINERS (material, number, size) SAMPLE CONTAINERS (material, number, size) SAMPLE CONTAINERS (material, number, size) SAMPLE CONTAINERS (material, number, size) SAMPLE CONTAINER HANDLING: SAMPLE CONTAINERS (material, number, size) SAMPLE CONTAINER HANDLING: SAMPLE CONTAINERS (material, number, size) SAMPLE		Sulfate:		Measured with:	
SAMPLE CONTAINERS (material, number, size) Containers		Ferrous Iron:		Measured with:	
ON-SITE SAMPLE TREATMENT: [] Filtration: Method		Other:			
ON-SITE SAMPLE TREATMENT: [] Filtration: Method				/a \ .	
ON-SITE SAMPLE TREATMENT: [] Filtration: Method	SAM	IPLE CONTAINERS (material, number, siz	e)(//, 1 / 1 / 1 / 2 cg -	
ON-SITE SAMPLE TREATMENT: [] Filtration: Method		1-114. T	4, Amons	HUCH (5)	
ON-SITE SAMPLE TREATMENT: [] Filtration: Method		2-137	ex bicc -	fre 4	
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SAMPLING LOCATION <u>MacDill AFB Site QT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND W	ATER SAMPLING RECORD - MONITORING WELL	Ċ
DATE AND SAMPLE CO	OR SAMPLING: [] - Regular Sampling; [] Special Sampling; TIME OF SAMPLING:	(number)
MONITORIN	WELL CONDITION: [] LOCKED: WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
	WATER DEPTH 3.65 3.13 Measured with: Water Level Probe	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: // // // // Odor: // Classification of the comments: // Classification of the comments of the	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: Other comments:	

:]	SAMPLE	E EXTRACTION I	METHOD:		
		[] Bailer ma	ide of:		
		[x] Pump, ty	pe: Peristaltic Pump)	
		[] Other, de	scribe:		
		Sample obtain	ned is [x] GRAB;	[] COMPOSITE SAMPLE	
c]	ON-SITE	E MEASUREMEN	ITS:		
•		Temp: 23.	7 ° _C	Measured with: Orion Instrument	
		pH: 70	6	Measured with:	
		Conductivity:	45 x 10 ms/c	Measured with:	
		Dissolved Ox	ygen: (3.13	Measured with: Orion Instrument	
			ial: -24,4	Measured with:	
		Salinity:		Measured with:	
		Nitrate:		Measured with:	
		Sulfate:		Measured with:	
		Ferrous Iron:	-	Measured with:	
]	SAMPLE	E CONTAINERS (material, number, si	ze): 1-700 fire, Horait plant,	Pina
]		E SAMPLE TREA		ze): /- TCC fire, Horait plant,	Pina
,	ON-SITE		TMENT:		
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]	ON-SITE	Filtration: Preservatives: [] Contain [] Contain	TMENT: Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND W	ATER SAMPLING RECORD - MONITORING WELL AMPS MODY - C
DATE AND	(number) OR SAMPLING: [Yè Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/15 , 1995 /5:15 a.m./pmp OLLECTED BY: MV/KC/ of ES Denut For the Cloudy of 75° F R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing
MONITORIN	WELL CONDITION: [] LOCKED: WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: FAIR - RUSTED and Covered wights INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone Items Cleaned (List): All Equipment used in sampling
2 [x]	PRODUCT DEPTHFT. BELOW DATUM Measured with: Oil/ Water Interface Probe
	WATER DEPTH 2.98FT. BELOW DATUM Measured with: Water Level Probe
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: Other Comments:
4 [x]	WELL EVACUATION: Method: Perstaltic Comp Volume Removed: Observations: Water (stightly - very) cloudy Water level (rose - fell - no change) Water odors: Other comments: Other comments: 15 of conts

m:\forms\gwsample.doc Page 1 of 2

DI (I	MPUE EXTRA	ACTION METHOD:	
	[]	Bailer made of:	
	[x]	Pump, type: Peristaltic Pump	2
	[]	Other, describe:	
	Samı	ple obtained is [x] GRAB; [[] COMPOSITE SAMPLE
ON-	SITE MEASU		
	Tem	p: <u>23,2</u> ° _C	Measured with: Orion Instrument
	pH: _	6.76	Measured with:
	Conc	ductivity: 241 x 10 HS/5	Measured with:
		olved Oxygen: 2,20 mg	Measured with: Orion Instrument
		ox Potential:	Measured with:
	Salin	uity:	Measured with:
	Nitra	ite:	Measured with:
	Sulfa	ate:	Measured with:
	Ferro	ous Iron:	Measured with:
	Othe	r:	
SAN	MPLE CONTA 	AINERS (material, number, si: 25 mf impreser) 40 ml BTEX -40 ml TVI	ze): 1-250 ml impreserved Al med Arians
ON-	SITE SAMPL	E TREATMENT:	
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GROUND W	ATER SAMPLING RECORD - MONITORING WELL MD-24-6
	(number)
DATE AND SAMPLE CO	R SAMPLING: Regular Sampling; [] Special Sampling; I'IME OF SAMPLING: 722/ , 1935 0900 im/p.m. LLECTED BY: MOV/KC of ES December of ES Dece
MONITORIN	IG WELL CONDITION:
	[] LOCKED: [V] UNLOCKED
	WELL NUMBER (IS - IS NOT) APPARENT
	STEEL CASING CONDITION IS: FAIR
	INNER PVC CASING CONDITION IS: Got &
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
	MONITORING WELL REQUIRED REPAIR (describe):
Check-off	
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
	Items Cleaned (List): All Equipment used in sampling
2 [x]	PRODUCT DEPTH NP FT. BELOW DATUM
	Measured with: Oil/ Water Interface Probe
	FINAL
	WATER DEPTH 3.00 -> 3.42 FT. BELOW DATUM
	Measured with: Water Level Probe
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):
2 [7]	Appearance: C/aur Odor: S/cg.L+
	Odor: Slight
	Other Comments:
4 [x]	WELL EVACUATION: Method: Devis halfic
	Method: projetaltic Volume Removed: 2000 ml
	Observations: Water (slightly - very) cloudy
	Water level (rose - [eff] - no change)
	Water odors: Aught
	Other comments:

Ground Wa	ter Samplin	g Record - Monito	ring Well No.11024	(Cont'd)		
5 [x]	SAMPL	E EXTRACTION	METHOD:			
	[] Bailer made of:					
		[x] Pump, ty	pe- Peristaltic Pump			
		[] Other, de	scribe:			
		Sample obtain	ned is [x] GRAB;	COMPOSITE SAMPLE		
5 [x]	ON-SITE MEASUREMENTS:					
		Temp: 21	}.6 ° C	Measured with: Orion Instrument		
	pH: 6.53 Conductivit 2.35 × 10			Measured with:		
		Conductivit	235 X/C	Measured with:		
		Dissolved Ox	ygen: Broke	Measured with: Orion Instrument		
			ial: - 51, 5	Measured with:		
		Salinity:		Measured with:		
		Nitrate:	A Red	Measured with:		
		Sulfate:		Measured with:		
		Ferrous Iron:		Measured with:		
7 [] 8 []		****	TMENT:	Containers:		
	ŧ,	i manon.		Containers:		
				Containers:		
	[]	Preservatives	added:			
			Method	Containers:		
				Containers:		
				Containers:		
				Containers:		
9[]	CONTA	INER HANDLING	j.			
		[] Contair	ner Sides Labeled ner Lids Taped ners Placed in Ice Ch	est		
10[]	OTHER	COMMENTS:				
. ,						

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

	WATER SAMP'LING RECORD - MONITORING WELL MDZY -	mw6 (number)
DATE AND	OR SAMPLING: [] Regular Sampling, [Special Sampling; DIME OF SAMPLING: 3/3/, 1945 15:3c a.m./pm. OLLECTED BY: MVIRE of ES	
ATUM FO	DR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
MONITORI	ING WELL CONDITION:	
	[] LOCKED: WELL NUMBER (S) IS NOT) APPARENT STEEL CASING CONDITION IS:	
	INNER PVC CASING CONDITION IS: Condition IS:	
Check-off		
I [X]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, a Items Cleaned (List): All Equipment used in sampling	and Acetone
	Items Cleaned (List): All Equipment used in sampling	FT. BELOW DATUM
	PRODUCT DEPTH	
1 [x] 2 [x] 3 [x]	PRODUCT DEPTH	FT. BELOW DATUM

Redox Potential: Measured with: Salinity: Measured with: Nitrate: Measured with: Sulfate: Measured with:	SAMPL	E EXTRACTION	METHOD:	
[x] Pump, type: Peristaltic Pump. [] Other, describe: Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS: Temp:		[] Bailer m	ade of:	
Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS: Temp:		[x] Pump, ty	pe: Peristaltic Pump	
Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS: Temp:		[] Other, de	escribe:	
Temp: C Measured with: Orion Instrument pH: Measured with:		Sample obtain		
Temp: C Measured with: Orion Instrument pH: Measured with:	ON-SIT	E MEASUREMEN	NTS:	
pH:				Measured with: Orion Instrument
Conductivity: Measured with: Dissolved Oxygen: Measured with: Orion Instrument Redox Potential: Measured with: Measured with: Salinity: Measured with: Measured with: Sulfate: Measured with: Measured with: Sulfate: Measured with: Me		pH:		
Dissolved Oxygen: Measured with: Orion Instrument Redox Potential: Measured with: Salinity: Measured with: Nitrate: Measured with: Sulfate: Measured with: Ferrous Iron: Measured with: Other: SAMPLE CONTAINERS (material, number, size): Z-BTEX		Conductivity:		
Redox Potential: Measured with: Salinity: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Other: Measured with: Measured with: Measured with: Other: Measured with: Measured w		Dissolved Ox	ygen:	Measured with: Orion Instrument
Salinity: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Other: Measured with: Measured with: Other: Measured with: Other: Measured with: Other: Measured with: Other: Measured with: Other: Measured with: Measured with: Other: Measured with: Measure		Redox Potent	ial:	
Nitrate:				Measured with:
Sulfate: Measured with: Measured wit		Nitrate:		Measured with:
Ferrous Iron:		Sulfate:		Measured with:
SAMPLE CONTAINERS (material, number, size): 2-BTLX (-TEH (-TEH DUP(2E) ON-SITE SAMPLE TREATMENT: [] Filtration: Method Containers: Method Cont		Ferrous Iron:		Measured with:
ON-SITE SAMPLE TREATMENT: [] Filtration: Method Containers: Method Co		Other:		
[] Filtration: Method	JAM LI		material, number, size	/- TEH
Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Containers: Container Flaced in Ice Chest				
Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Containers: Container Flaced in Ice Chest	ON-SITI	E SAMPLE TREA	TMENT:	
Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: [] Container Sides Labeled [] Container Lids Taped [] Containers Placed in Ice Chest				Containers:
Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Containers: Container Sides Labeled [] Container Sides Labeled [] Container Lids Taped [] Containers Placed in Ice Chest			Method	
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Method Containers: CONTAINER HANDLING: [] Container Sides Labeled [] Container Lids Taped [] Containers Placed in Ice Chest	[]	Filtration:	Method Method Methodadded:	Containers: Containers: Containers:
 [] Container Sides Labeled [] Container Lids Taped [] Containers Placed in Ice Chest 	[]	Filtration:	Method Method Method added: Method Method	Containers: Containers: Containers: Containers:
Container Lids Taped Containers Placed in Ice Chest	[]	Filtration:	Method Method added: Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
Container Lids Taped Containers Placed in Ice Chest	[]	Filtration: Preservatives	Method	Containers: Containers: Containers: Containers: Containers: Containers:
[] Containers Placed in Ice Chest	[]	Filtration: Preservatives INER HANDLING	Method Method added: Method Method Method Method Method S:	Containers: Containers: Containers: Containers: Containers: Containers:
OTHER COMMENTS:	[]	Filtration: Preservatives INER HANDLING	Method	Containers: Containers: Containers: Containers: Containers: Containers:
	[]	Filtration: Preservatives INER HANDLING Contain Contain	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers:
	[] CONTA	Filtration: Preservatives INER HANDLING [] Contain [] Contain	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers:

SAMPLING	LOCATION MacDill AFB Site OT-24
SAMPLING	DATE(S) March 1995

GROUND W	ATER SAMPLING RECORD	- MONITORING WELL	MO 24	- mw EA
DATE AND SAMPLE CO	R SAMPLING: (1) Regular FIME OF SAMPLING: 3 PLLECTED BY: MVLKC R WATER DEPTH MEASUR	131/95.19 15: of ES Da	40 a.m./2000	(number)
MONITORIN	IG WELL CONDITION: [] LOCKED: WELL NUMBER ()- IS NOT STEEL CASING CONDITION OF THE PVC CASING CONDITION OF THE	DITION IS: EMENT DATUM (IS - IS E ECTED BY SAMPLE COL	LECTOR	
Check-off [x]	EQUIPMENT CLEANED B Items Cleaned (EFORE USE WITH <u>Alcon</u> (List): <u>All Equipment used</u>		
2 [x]	PRODUCT DEPTH	Oil/ Water Interface Probe)	FT. BELOW DATUM
	WATER DEPTH Measured with:	Water Level Probe		FT. BELOW DATUM
3 [x]	Odor:	ORE WELL EVACUATION Section 15:		
4 [x]	WELL EVACUATION: Method: Volume Remov Observations:	/ed:	no change)	-

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND W	VATER SAMPLING RECORD - MONITORING WELL	
		(number)
REASON FO	OR SAMPLING: [X] Regular Sampling; [] Special Sampling;	,
DATE AND	OLLECTED BY: MY/KC/JF of ES De ALLEZ	
SAMPLE CO	OLLECTED BY: MY/KC/IF of ES De Luz	
WEATHER:	Party Sunay R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
DATUM FO	OR WATER DEPTH MEASUREMENT (Describe): 10p of Well Casing	
MONITORII	NG WELL CONDITION:	
	[] LOCKED: [X] UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: FAIR - RUSTED	
	INNER PVC CASING CONDITION IS: 600 d	
	WATER DEPTH MEASUREMENT DATUM (IS - 18 NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2Q, and	1 cetone
. [7]	Items Cleaned (List): All Equipment used in sampling	
	tions of all the state of the s	
2 [x]	PRODUCT DEPTH	
	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH 2.66	FT RELOW DATUM
	Measured with: Water Level Probe	J. T. DDDO W DATION
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance:	
	Odor:	
	Other Comments:	
4.57	HITT TO THE OUT A THICK	
4 [x]	WELL EVACUATION: Method: Peristaltic Pune	
	Volume Removed: 2000 ML	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no change)	
	Water odors: Moderate HC	odor
	Water odors: node rate HC Other comments: red particulate	naterial
	present, could be no	ust 3

ound W	ater Samplin	g Record - Monitoring	g Well No. ML	<u>) 24-64</u> (Cont'd)
x]	SAMPL	E EXTRACTION ME	ETHOD:	
		[] Bailer made	e of:	
		Sample obtained	is [x] GRAB; []	COMPOSITE SAMPLE
[x]	ON-SIT	E MEASUREMENTS	S:	
•		Temp: $\lambda 3.3$	° C	Measured with: Orion Instrument
		pH: 7/6	19	Measured with:
		Conductivity:	74 +10 M5/5	Measured with:
		Dissolved Oxyge	en: <u>0.28</u> m./	Measured with: Orion Instrument
		Redox Potential:	/(ℓ	Measured with:
		Salinity:		Measured with:
		Nitrate:		Measured with:
		Sulfate:		Measured with:
		Ferrous Iron:		Measured with:
		1-125 ml 2-40 ml 2-40 ml	BTEX TUH	2 /- 250 ml - unpreserved Alkalin ed Anions Preserved bottles
]	ON-SITI	E SAMPLE TREATM	IENT:	
	[]	Filtration:	Method	Containers:
	.,			Containers:
			Method	Containers:
	[]	Preservatives add	ied:	
			Method	Containers:
]	CONTA	INER HANDLING:		
		[] Container	Sides Labeled Lids Taped s Placed in Ice Chest	
[]	OTHER	comments: D.	D. not a Atabilia	Cal broled Samples taken
		<i>y</i>		
	-			

GROUND V	WATER SAMPLING RECORD - MONITORING WELL $M \mathcal{L}^2 \mathcal{L} - \mathcal{G} \mathcal{A}$	
		(number)
REASON F	OR SAMPLING: [3] Regular Sampling; [3] Special Sampling;	
DATE AND	DITIME OF SAMPLING: $3/2$, 19.75 08.30 a.m. 4 p.m.	
SAMPLE C	OLLECTED BY: MY/KC of ES Acros	
	: 5 my - 90	
DATUM FO	DR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
MONITORI	ING WELL CONDITION:	
	[] LOCKED: [JUNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS:	
	INNER PVC CASING CONDITION IS: Cred	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, a	
	Items Cleaned (List): All Equipment used in sampling	
2[x]	PRODUCT DEPTH NO P	FT. BELOW DATUM
	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH 2.70 - 2.75	PT DELOW DATEM
	Measured with: Water Level Probe	FI. BELOW DATOM
	Measured with: Water Level Frode	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
- ()	Appearance:	
	Appearance: CV: Odor: Mollocode Salticae	
	Other Comments:	
4 [x]	WELL EVACUATION:	
	Method: paristaltic som?	
	Volume Removed: 2500 mc	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - (el) no change)	
	Water odors: moderate	
	Other comments:	

		METHOD:		
	[] Other, de	scribe:		
	Sample obtain	ed is [x] GRAB; []	COMPOSITE SAMPLE	
ON-SITE	MEASUREMEN	TS:		
	Temp:	°C	Measured with: Orion Instrument	
	pH:		Measured with:	
	Conductivity:		Measured with:	
	Dissolved Ox	ygen:	Measured with: Orion Instrument	
	Redox Potenti	al:	Measured with:	
	Salinity:		Measured with:	
	Nitrate:	- Marie	Measured with:	
	Sulfate:		Measured with:	
	Ferrous Iron:		Measured with:	
	Other:			
ON-SITE	SAMPLE TREA	TMENT:		
	Filtration:	Method	Containers	
[]	Filtration:		Containers:	
	Filtration:	Method	Containers: Containers: Containers:	
	Filtration: Preservatives	Method Method	Containers:	
[]		Method Methodadded:	Containers:Containers:	
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[]	Preservatives	Methodadded: Method Method Method Method Method	Containers: Containers: Containers: Containers:	
[]	Preservatives NER HANDLING	Methodadded: Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
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[]	Preservatives NER HANDLING [] Contair [] Contair	Methodadded: Method Method Method Method i: ner Sides Labeled ner Lids Taped ners Placed in Ice Ches	Containers: Containers: Containers: Containers: Containers: Containers: Containers:	

	SAMPLI	E EXTRACTION I	METHOD:	
		[] Other, de	scribe:	
		Sample obtain	ned is [x] GRAB; []	COMPOSITE SAMPLE
	ON-SITE	E MEASUREMEN		
			2.1 ° _C	Measured with: Orion Instrument
		pH: <i>6.</i> ¿	18NS/cm	Measured with:
			ygen: Broke	Measured with: Orion Instrument
			al: - 95,9 m	Measured with:
		Salinity:		Measured with:
		Nitrate:		Measured with:
		Sulfate:		Measured with:
		Ferrous Iron:		Measured with:
	ON-SITE	E SAMPLE TREA	Method	Containers:Containers:Containers:Containers:Containers:
				Containers.
	[]	Preservatives	added:	
			Method	Containers:
				Containers:
			Method	Containers:
			Method	Containers:
	CONTAI	INER HANDLING	} :	
		[] Contain	er Sides Labeled er Lids Taped ers Placed in Ice Chest	·
_	OTHER	COMMENTS:		
]				

GROUND W	VATER SAMPLING RECORD - MONITORING WELL	- 7
REASON FO DATE AND SAMPLE CO WEATHER:	OR SAMPLING: [/ Regular Sampling; [] Special Sampling; OTIME OF SAMPLING: 3/2/44, 19 // Am./p.m. OLLECTED BY: MV/KC of ES OF COMMENT (Describe): Top of Well Casing	(number)
MONITORIN	NG WELL CONDITION: [] LOCKED: WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Ace Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	. BELOW DATUM
	WATER DEPTH 2 (A 2 66 FT Measured with: Water Level Probe	. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: (Icody) Odor: Signat Other Comments:	
4 [x]	WELL EVACUATION: Method: //corestell. Volume Removed: 2500(Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: 2500(Other comments:	

SAMP	LE EXTRACTION	METHOD:					
	f 1. Dailes se	[] Bailer made of:					
	[] Baller m	ade of:					
	[] Other, de	scribe					
	Sample obtain	ned is [x] GRAB; [] COMPOSITE SAMPLE				
ON-SI	TE MEASUREMEN	ITS:					
	Temp: <u>し</u> 3.	<u> 3</u> ° _С	Measured with: Orion Instrument				
	рН: <u> </u>	63.14	Measured with:				
	Conductivity:	63000	Measured with:				
	Dissolved Ox	ygen: <u>123</u>	Measured with: Orion Instrument				
	Redox Potent	ial: + 3 + 4	Measured with:				
	Salinity:		Measured with:				
	Nitrate:		Measured with:				
	Sulfate:		Measured with:				
			Measured with.				
			e):				
	TE SAMPLE TREA	TMENT: Method Method	Containers:Containers:				
ON-SI	TE SAMPLE TREA	TMENT: Method Method Method	Containers:				
ON-SI	TE SAMPLE TREA	TMENT: Method Method Method	Containers:Containers:				
on-si	TE SAMPLE TREA	TMENT: Method Method added: Method	Containers: Containers: Containers:				
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ON-SI []	TE SAMPLE TREA Filtration: Preservatives AINER HANDLING {] Contain [] Contain	TMENT: Method Method added: Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				
ON-SI	TE SAMPLE TREA Filtration: Preservatives AINER HANDLING [] Contain [] Contain [] Contain	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				
ON-SI	TE SAMPLE TREA Filtration: Preservatives AINER HANDLING [] Contain [] Contain [] Contain	TMENT: Method Method added: Method Method Method Method Method S: ner Sides Labeled her Lids Taped	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				

GROUND W	VATER SAMPLING RECORD - MONITORING WELL $MD24$	-8
		(number)
REASON FO	OR SAMPLING: [4 Regular Sampling; [] Special Sampling;	, ,
DATE AND	TIME OF SAMPLING: 3/27/e , 1985 44:15 a.m./p.m.	
WEATHER:	DLLECTED BY: MY/KC of ES & Denvir	
	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
	(2001.00).	
MONITORII	NG WELL CONDITION:	
	[] LOCKED: [A UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS:	
	INNER PVC CASING CONDITION IS: GOOF	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, an	d Acetone
- ()	Items Cleaned (List): All Equipment used in sampling	
2 (*)	PRODUCT DEPTH NP	ET DELOW DATINA
2 [x]	PRODUCT DEPTH PP Measured with: Oil/ Water Interface Probe	FT. BELOW DATUM
	=	
	WATER DEPTH 2.80 -> 2.85	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
J [^]	Appearance: 6/200	
	Odor: Alicit	
	Other Comments:	
4 [x]	WELL EVACUATION: Method: 0 < 5 / 6 / / / / / / / / / / / / / / / / /	
	Wethod: 3556/Fic	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no change)	
	Water odors:	
	Other comments:	WILL COUNTY
	bucy exaction	on Course alline
	Through	or come they
	~	

m:\forms\gwsample.doc Page 1 of 2

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SAMPLE	EXTRACTION	METHOD:	
	[] Bailer m	rade of	
	[x] Pump, ty	pe: Peristaltic Pump	
	[] Other, d	escribe:	
	Sample obtai	ned is [x] GRAB; [] COMPOSITE SAMPLE
ON-SITE	MEASUREMENTS:		
	Temp: 22	° C	Measured with: Orion Instrument
	pH:	16)	Measured with:
	Conductivity	: <u> </u>	Measured with:
	Dissolved Ox	ygen:	Measured with: Orion Instrument Measured with:
	Redox Potent	ial:	Measured with:
	Salinity:		Measured with:
	Nitrate:		Measured with:
	Sulfate:	. A. A. P	Measured with:
	Other:		Measured with:
			ce): All Annie Boti (E)
	CONTAINERS (I) (I) (I) (I) (I) (I) (I) (I) (I) (I)	TMENT: Method Method	Containers:Containers:
ON-SITE	SAMPLE TREA Filtration:	TMENT: Method Method Method	Containers:
ON-SITE	SAMPLE TREA	TMENT: Method Method Method	Containers:Containers:
ON-SITE	SAMPLE TREA Filtration:	TMENT: Method Method Method	Containers: Containers: Containers:
on-site []	SAMPLE TREA Filtration:	TMENT: Method Method Method added: Method	Containers: Containers: Containers:
ON-SITE	SAMPLE TREA Filtration:	TMENT: Method Method Method added: Method Method	Containers: Containers: Containers:
ON-SITE	SAMPLE TREA Filtration:	TMENT: Method Method Method added: Method Method	Containers: Containers: Containers: Containers: Containers:
ON-SITE	SAMPLE TREA Filtration:	TMENT: Method Method added: Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	SAMPLE TREA Filtration: Preservatives	TMENT: Method Method added: Method Method Method Method Method Strength of the control of the	Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	SAMPLE TREA Filtration: Preservatives NER HANDLING Contain Contain	TMENT: Method Method added: Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	SAMPLE TREA Filtration: Preservatives NER HANDLING Contain Contain	TMENT: Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:

(4)

GROUND W	ATER SAMPLING RECORD - MONITORING WELL MO 24-9	
		(number)
REASON FO	OR SAMPLING: [* Regular Sampling; [] Special Sampling;	, ,
DATE AND	TIME OF SAMPLING: 3/20, 1995 10:05 (m) p.m.	
SAMPLE CO	DLLECTED BY: MV/KC/JF of ES Den mer	
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
		· · · · · · · · · · · · · · · · · · ·
MONITORI	NG WELL CONDITION:	
MONTORI	[] LOCKED: TUNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS:	
	INNER PVC CASING CONDITION IS:	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, an	
	Items Cleaned (List): All Equipment used in sampling	
2 (1	DDODUCT DEDTY	ET DELOW DATINA
2 [x]	PRODUCT DEPTH A not passing	F1. BELOW DATUM
	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH 2.4/	ET RELOW DATUM
	Measured with: Water Level Probe	IT. DELOW DATOM
	Mediated With. Whell Ecver 11000	· · · · · · · · · · · · · · · · · · ·
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance:	
	Odor:	
	Other Comments:	
4 [x]	WELL EVACUATION:	
	Method: Porstaltin purp	
	Volume Removed: 2 520 al	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - 10) - no change)	
	Water odors: no	
	Other comments:	

SAMPI	E EXTRACTION I	EXTRACTION METHOD:					
	[] Bailer ma	[] Bailer made of:					
	[x] Pump, ty	pe: Peristaltic Pump		at appendix a			
	[] Other, de						
	Sample obtain		COMPOSITE SAMPLE	To the made which the			
ON-SIT	E MEASUREMEN						
	Temp: 2 //.	9 ° _C	Measured with: Orion Instrument	marin en de			
	pH:	9000 HS/cm	Measured with: Folech				
	Conductivity:	gen: 0.30 1/2	Measured with: Prior Instrument 1973				
		al: -76 0 MV	Measured with:	-			
	Salinity:		Measured with:				
	Nitrate:		Measured with:				
	Sulfate:	n silalitana magazar no d	Measured with:				
	Ferrous Iron:		Measured with:				
	Other:						
SAMPL	E CONTAINERS (1 2 × 40 m me Han	material, number, size)	: 1-125 of Powers 2 * comb 7: Yeard Voc 1 x 50 ml 250 ml HACH grad	£70,			
	E CONTAINERS (I	- 1 X	: 1-125al Parars ? « 40 ml 7 : 40 ml Voc , 1 x 50 ml 250 ml Hac u grab	ETC.			
ON-SIT	me than	FMENT:	250 ml HACH grad				
	TE SAMPLE TREAT	TMENT: Method Method	Containers: Containers:				
ON-SIT	TE SAMPLE TREAT	TMENT: Method Method	Containers:				
ON-SIT	TE SAMPLE TREAT	Method Method Method	Containers: Containers:				
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on-sit	E SAMPLE TREAT	Method Me	Containers: Containers: Containers: Containers:				
on-sit	E SAMPLE TREAT	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				
on-sit	E SAMPLE TREAT	Method Me	Containers: Containers: Containers: Containers: Containers: Containers:				
ON-SIT	E SAMPLE TREAT	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				
ON-SIT	Filtration: Preservatives a	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				
ON-SIT	Filtration: Preservatives a	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				
ON-SIT	Filtration: Preservatives a INER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				
ON-SIT	Filtration: Preservatives a INER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				
ON-SIT	Filtration: Preservatives a INER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:				

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Page 2 of 2

GROUND V	WATER SAMPLING RECORD - MONITORING WELL	100 00 00 B
DATE AND SAMPLE C WEATHER	OR SAMPLING: [Regular Sampling; [Special Sampling; D. TIME OF SAMPLING: 3/	(number)
MONITORI	NG WELL CONDITION:	
	[] LOCKED: [L-]-UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS:	
	STEEL CASING CONDITION IS: Conclude Condition Is:	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, an Items Cleaned (List): All Equipment used in sampling	
2 [x]		FT. BELOW DATUM
	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH 2.05 - 2.11	ET BELOW DATUM
	Measured with: Water Level Probe	I II DEEO W DITTOM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: Other Comments:	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: Other comments:	

	AMPLE EXTRACTION METHOD:				
	[] Other, de	scribe:			
	Sample obtain	ed is [x] GRAB; []	COMPOSITE SAMPLE		
ON-S	TE MEASUREMEN	7 7 :			
3. s.	Temp: 72.	3° C	Measured with: Orion Instrument		
	pH: 4-1	3 ° _C	Measured with:		
	Conductivity:	110 ×10 ygen: 007.1/6	Measured with:		
	Dissolved Oxy	ygen: <u>c c 7 /</u>	Measured with: Orion Instrument		
	Redox Potenti	al: - 12 3.6-100	Measured with:		
	Salinity:	A CONTRACTOR	Measured with:		
	Nitrate:		Measured with:		
	Sulfate:		Measured with:		
	Ferrous Iron:		Measured with:		
	Other.		**************************************		
ON-SI	TE SAMPLE TREA	TMENT:			
		TMENT: Method	Containers:		
ON-SI	TE SAMPLE TREA	TMENT: Method Method			
ON-SI	TE SAMPLE TREA	TMENT: Method Method Method	Containers:Containers:		
on-si	TE SAMPLE TREAT	TMENT: Method Method Method	Containers: Containers: Containers:		
on-si	TE SAMPLE TREAT	TMENT: Method Method Method added: Method	Containers: Containers: Containers:		
on-si	TE SAMPLE TREAT	TMENT: Method Method added: Method Method	Containers: Containers: Containers:		
on-si	TE SAMPLE TREAT	TMENT: Method Method added: Method Method Method Method	Containers: Containers: Containers: Containers:		
ON-SI	TE SAMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:		
ON-SI	TE SAMPLE TREATERITE SAMPLE TREATERITE SAMPLE TREATERITE SAMPLE TREATERITE SAMPLE TREATERITE SAMPLE TREATERITE SAMPLE SAM	Method Method Method added: Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:		
ON-SI	TE SAMPLE TREAT Filtration: Preservatives at AINER HANDLING Contain Contain	Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:		
ON-SI	Filtration: Preservatives a AINER HANDLING Contain Contain Contain	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:		
ON-SI	Filtration: Preservatives a AINER HANDLING Contain Contain Contain	Method Method added: Method Method Method Method Method Method i: er Sides Labeled er Lids Taped	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:		

	SAMPLING DATE(S) March 1995
GROUND 1	WATER SAMPLING RECORD - MONITORING WELL MD 24 - 10
	(number)
REASON F	OR SAMPLING: M. Regular Sampling; [] Special Sampling;
DATE AND	TIME OF SAMPLING: 3/3/, 1995 /6: 20am/p.m.
SAMPLE C	OLLECTED BY MY/RO of ES
	Clouder 80"
	OR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing
MONITOR	ING WELL CONDITION:
Monton	[] LOCKED: "\UNLOCKED
	WELL NUMBER (\$\infty\) IS NOT) APPARENT
	STEEL CASING CONDITION IS: (200 d
	INNER PVC CASING CONDITION IS:
	WATER DEPTH MEASUREMENT DATUM (IS—IS NOT) APPARENT
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
	MONITORING WELL REQUIRED REPAIR (describe):
Check-off	
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
- []	Items Cleaned (List): All Equipment used in sampling
2 [x]	PRODUCT DEPTH FT. BELOW DATUM
~ []	Measured with: Oil/ Water Interface Probe
	WATER DEPTH FT. BELOW DATUM
	Measured with: Water Level Probe
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):
	Appearance: (/ear
	76

Water (slightly 2 very) cloudy

Other comments:

Water level (rose - fell - no change)
Water odors:

Other Comments:_

Volume Removed:

Observations:

Method:_

WELL EVACUATION:

SAMPLING LOCATION MacDill AFB Site 49 24

4 [x]

round W	ater Samplin	g Record - Monito	ring Well No	MW-18 (Cont'd)			
[x]	SAMPL	E EXTRACTION	METHOD:				
		[] Bailer m	ade of:				
		[x] Pump, ty	pe: Peristaltic Pump				
		[] Other, de	escribe:				
		Sample obtain	ned is [x] GRAB;] COMPOSITE SAMPLE			
[x]	ON-SIT	ON-SITE MEASUREMENTS:					
		Temp:	°C	Measured with: Orion Instrument			
		pH:		Measured with:			
		Conductivity:		Measured with:			
		Dissolved Ox	ygen:	Measured with: Orion Instrument			
		Redox Potent	ial:	Measured with:			
		Salinity:		Measured with:			
		Nitrate:	· · · · · · · · · · · · · · · · · · ·	Measured with:			
		Sulfate:		Measured with:			
		Ferrous Iron:		Measured with:			
		Other:					
				ze): Z-BFRX 1-HACH VOA FO Sælfwe vodo			
[]	ON-SIT	E SAMPLE TREA	TMENT:				
	[]	Filtration:	Method	Containers:			
			Method	Containers:			
			Method	Containers:			
	[]	Preservatives	added:				
			Method	Containers:			
				Containers:			
				Containers:			
			Method	Containers:			
[]	CONTA	INER HANDLING	3 :				
			ner Sides Labeled				
			ner Lids Taped ners Placed in Ice Ch	est .			
) []	OTUED	COMMENTS:					
/ L J	Jinek	COMMENTS.					

GROUND W	WATER SAMPLING RECORD - MONITORING WELL	4
REASON FO DATE AND SAMPLE CO WEATHER:	OR SAMPLING: [2] Regular Sampling; [3] Special Sampling; OTIME OF SAMPLING: 2/2/25, 19	(number)
MONITORIN	NG WELL CONDITION: [] LOCKED: WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Items Cleaned (List): All Equipment used in sampling	
2 [x]	Measured with: Oil/ Water Interface Probe	_FT. BELOW DATUM
	WATER DEPTH 2.15 2 25 CA Measured with: Water Level Probe	_FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Clease Odor: Shipht Other Comments:	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: Other comments:	

Ground Water	r Sampling R	Record - Monitorin	ng Well No.	(Cont'd)		
5 [x]	SAMPLE E	EXTRACTION M	ETHOD:			
		[] Bailer mad	e of:			
		[x] Pump, type	: Peristaltic Pump			
		Sample obtained	d is [x] GRAB; []	COMPOSITE SAMPLE		
6 [x]	ON-SITE MEASUREMENTS:					
o (x)	ON-SHE II	Temp: 2 6		Measured with: Orion Instrument		
		nH· 7.		Measured with:		
		Conductivity:	141 ×10 0	Measured with:		
		Dissolved Oxyg	1411 × 10 (?)	Measured with: Orion Instrument		
		Redox Potential	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	Measured with:		
		Salinity:		Measured with:		
		Nitrate:		Measured with:		
		Sulfate:	·	Measured with:		
		Ferrous Iron:		Measured with:		
		-				
7[]	SAMPLE C	CONTAINERS (m	aterial, number, size):			
		-				
8[]	ON-SITE S	SAMPLE TREAT	MENT:			
	[]	Filtration:	Method	Containers:		
	t J	i maanon.		Containers:		
				Containers:		
	[]	Preservatives ad	Ided:			
				Containers:		
				Containers:		
				Containers:		
			Method	Containers:		
9[]	CONTAINER HANDLING:					
	Container Sides Labeled					
	[] Container Lids Taped					
			rs Placed in Ice Chest	·		
10[]	OTHER CO	OMMENTS:				
· -						

GROUND W	ATER SAMPLING RECORD - MONITORING WELL	MOZY-MWIOA
DATE AND SAMPLE COWEATHER:	OR SAMPLING: [1] Regular Sampling; [1] Special Sampling: TIME OF SAMPLING: 3/3/, 1995 /6:10 OLLECTED BY: MOTEO OF ES COORD R WATER DEPTH MEASUREMENT (Describe): Top of W	a.m./p.m.
MONITORIN	NG WELL CONDITION:	
	[] LOCKED: YU WELL NUMBER ((S)- IS NOT) APPARENT	NLOCKED
	STEEL CASING CONDITION IS:	
	INNER PVC CASING CONDITION IS:	
	WATER DEPTH MEASUREMENT DATUM (IS) IS NOT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTION [] MONITORING WELL REQUIRED REPAIR (describe	
	[] MONITORING WELL REQUIRED REPAIR (describe)·
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox. Items Cleaned (List): All Equipment used in sa	
2 [x]	PRODUCT DEPTH NP	FT. BELOW DATUM
د ام) د اما	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH / M	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Appearance: C/eer Odor: weak Other Comments:	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (stightly - very) cloud Water evel (rose - fell - no Water odors: Other comments:	у .

and W	ater Samplir	ng Record - Monito	ring Well No.	MW 70F (Cont'd)
]	SAMPL	E EXTRACTION	METHOD:	
		[] Bailer m	ade of:	
		[x] Pump, ty	pe: Peristaltic Pump)
		[] Other, de	escribe:	
		Sample obtain	ned is [x] GRAB; [[] COMPOSITE SAMPLE
(]	ON-SIT	E MEASUREMEN	ITS:	
•		Temp:	°C	Measured with: Orion Instrument
		pH:		Measured with:
		Conductivity:		Measured with:
		Dissolved Ox	ygen:	Measured with: Orion Instrument
		Redox Potent	ial:	Measured with:
		Salinity:	H B Thankey	Measured with:
		Nitrate;		Measured with:
		Sultate:		Measured with:
		Ferrous Iron:		Measured with:
				J- ## HACH WOA for
J	ON-SIT	E SAMPLE TREA	TMENT:	
	[]	Filtration:	Method	Containers:
	` -			Containers:
			Method	Containers:
	[]	Preservatives	added:	
			Method	Containers:
				Containers:
				Containers:
				Containers:
I	CONTA	INER HANDLING	3 :	
		for Contain	ner Sides Labeled	
		~ ,	er Lids Taped	
			ners Placed in Ice Ch	est .
1	OTHER	0-		
]	OTHER	COMMENTS:		
				· · · · · · · · · · · · · · · · · · ·

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND V	VATER SAMPLING RECORD - MONITORING WELL 24 197 - 11)
	(number) OR SAMPLING: [-] Regular Sampling; [] Special Sampling;
SAMPLE CO	OLLECTED BY: MV/KC of ES Decer
WEATHER:	Simmy - Eco
	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing
MONITORI	NG WELL CONDITION:
	[] LOCKED: [L] UNLOCKED
	WELL NUMBER (IS - IS NOT) APPARENT
	STEEL CASING CONDITION IS: , Lie, C
	INNER PVC CASING CONDITION IS:
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
	[] MONITORING WELL REQUIRED REPAIR (describe):
GI 1 00	
Check-off	
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
	Items Cleaned (List): All Equipment used in sampling
2 [x]	PRODUCT DEPTHFT. BELOW DATUM
~ [.1.]	Measured with: Oil/ Water Interface Probe
	Incustred with Old Water Interface Froot
	WATER DEPTHFT. BELOW DATUM
	Measured with: Water Level Probe
	Integration with the Maria Designation
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: (/e// (//////////////////////////////
- (···)	Appearance: Clerk (VEllers - > miller while)
	Odor
	Other Comments:
4 [x]	WELL EVACUATION:
,	Method: Perstle litic
	Volume Removed: ? c c c · · · · /
	Observations: Water (stightly - very) cloudy
	Water level (rose - fell - no change)
	· · · · · · · · · · · · · · · · · · ·
	Water odors:

Ground W	Vater Samplin	g Record - Monito	ring Well No <u>24-MP</u>	(Cont'd)	
5 [x]	SAMPL	E EXTRACTION	METHOD:		
		[] Bailer m	ade of:		
					_
		[] Other, de	escribe:	· · · · · · · · · · · · · · · · · · ·	_
					_
		Sample obtain	ned is [x] GRAB; []	COMPOSITE SAMPLE	
[x]	ON-SITI	E MEASUREMEN			
		Temp:	<u>, ₺</u> ∘ _ C	Measured with: Orion Instrument	
		pH: <i>ن</i> ،	49	Measured with:	
			116 x/c	Measured with:	
		Dissolved Ox	ygen: <u>0.39 mg/</u> ial: <u>-91.4</u>	Measured with: Orion Instrument	
		Redox Potent	ial:	Measured with:	-
		Salinity:		Measured with:	-
		Nitrate:		Measured with:	-
		Sulfate:		Measured with:	
				wicasured with.	-
		Other.			_
			,	C, TVH	-
3[]	ON-SITI	E SAMPLE TREA	TMENT:		
	[]	Filtration:	Method	Containers:	
		· ····································		Containers:	
				Containers:	
	[]	Preservatives	added:		
			Mathod	Containers:	
				Containers:	
				Containers:	
			Method	Containers:	•
1	CONITA	INER HANDLING			
[]	CONTA	HILLIAM DANDLING	J.		
		Contain	ner Sides Labeled		
			ner Lids Taped		
			ners Placed in Ice Chest	•	
0.5.3					
0[]	OTHER	COMMENTS:			-
					-
					-
			***************************************		-
	-				_

GROUND W	ATER SAMPLING RECORD - 1	MONITORING WEL	1 24 MP	/5
REASON FO DATE AND SAMPLE CO WEATHER:	OR SAMPLING: [1] Regular Sar TIME OF SAMPLING:	mpling; [] Special $\frac{9}{2}$, $\frac{1995}{2}$ of ES $\frac{1}{2}$.	Sampling; F. (c) zm./p.m.	(number)
MONITORI	NG WELL CONDITION:			
	[] LOCKED: WELL NUMBER (IS - IS NOT STEEL CASING CONDITION	IS:	V) UNLOCKED	
	INNER PVC CASING CONDI			
	WATER DEPTH MEASUREM [] DEFICIENCIES CORRECT [] MONITORING WELL RECT	TED BY SAMPLE C	OLLECTOR	
Check-off 1 [x]	EQUIPMENT CLEANED BEF			d Acetone
2 [x]	PRODUCT DEPTH		obe	FT. BELOW DATUM
	WATER DEPTH Measured with: W	3.64 ater Level Probe		FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFOR Appearance: Odor: Other Comments:	Deve X Time	COLL IX	·
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations:	Water (slightly - Fery) cloudy	

SAMPL	E EXTRACTION	METHOD:		
	[] Bailer m	ade of:	44	
	[x] Pump, ty	pe: Peristaltic Pump		
	[] Other, de	escribe:		
	Sample obtain	ned is [x] GRAB; []	COMPOSITE SAMPLE	<u> </u>
ON-SIT	E MEASUREMEN	NTS;		
	Temp: 2	<u>. ५.६ ॰ _ c _ </u>	Measured with: Orion Instrument Measured with: Measured with: Measured with: Orion Instrument	
	pH:(:.(6	Measured with:	
	Conductivity:	50×0 mb/cm	Measured with:	
	Dissolved	15011. C. Paul 12	Measured With. Office Mistrament	
			Measured with:	
	Salinity:	· · · · · · · · · · · · · · · · · · ·	Measured with:	
	Nitrate:		Measured with:	
	Sulfate:		Measured with:	
			Measured with:	
SAMPL	E CONTAINERS	(material, number, size):	- TVH	ANE,
ON-SIT	E SAMPLE TREA	TMENT:		
		TMENT:	Containers:	
ON-SIT	E SAMPLE TREA	TMENT: Method Method		
ON-SIT	E SAMPLE TREA	TMENT: Method Method Method	Containers:Containers:	
ON-SITI	E SAMPLE TREA Filtration:	TMENT: Method Method Method added:	Containers:Containers:	
ON-SITI	E SAMPLE TREA Filtration:	TMENT: Method Method Method added: Method Method	Containers: Containers: Containers: Containers: Containers:	
ON-SITI	E SAMPLE TREA Filtration:	TMENT: Method Method added: Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SITI	E SAMPLE TREA Filtration:	TMENT: Method Method Method added: Method Method	Containers: Containers: Containers: Containers: Containers:	
ON-SIT	E SAMPLE TREA Filtration:	TMENT: Method Method added: Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	E SAMPLE TREA Filtration: Preservatives INER HANDLING	TMENT: Method Method added: Method Method Method Method Method S: ner Sides Labeled	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	E SAMPLE TREA Filtration: Preservatives INER HANDLING Contain Contain	TMENT: Method Method added: Method Method Method Method Method G: ner Sides Labeled ner Lids Taped	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	E SAMPLE TREA Filtration: Preservatives INER HANDLING Contain Contain	TMENT: Method Method added: Method Method Method Method Method S: ner Sides Labeled	Containers: Containers: Containers: Containers: Containers: Containers:	

GROUND V	VATER SAMPLING REC	ORD - MONITORING WI	ELL 2 4	MP-20
REASON FOR DATE AND SAMPLE CONTRACTOR WEATHERS	OR SAMPLING: [4] Reg TIME OF SAMPLING: _ OLLECTED BY: MY/K	ular Sampling; [] Specia 3 / 2 3 , 19 25 C of ES 10 SUREMENT (Describe): 1	al Sampling;	(number) n.
MONITORI	NG WELL CONDITION:			
	[] LOCKED:		[4] UNLOCK	ED
	WELL NUMBER (IS -	IS NOT) APPARENT		
	STEEL CASING CONI	DITION IS:	1 he	
		CONDITION IS:		
		SUREMENT DATUM (IS DRRECTED BY SAMPLE		RENT
		ELL REQUIRED REPAIR		
	() MONITORING WE	DE REQUIRED REFAIR	(describe)	
Check-off 1 [x]	Items Clea	ned (List): All Equipment	used in sampling	
2 [x]				FT. BELOW DATUM
	Measured v	with: Oil/ Water Interface I	robe	
	WATER DEPTH	ين و ي		FT. BELOW DATUM
		with: Water Level Probe	· · · · · · · · · · · · · · · · · · ·	T. BELOW DATOM
3 [x]	WATER-CONDITION Appearance Odor:	BEFORE WELL EVACUA e: (1/20) - (Modercut	1 rody	· · · · · · · · · · · · · · · · · · ·
4 [x]	WELL EVACUATION:	. / 1		
	Method:	moved:	· · · · · · · · · · · · · · · · · · ·	
	Volume Re	emoved:	e ml	
	Observatio			
		Water level (rose -	tell - no change)	Sulfuric
			3	- /ul +unic
		Other comments:		

SAN	IPLE EXTRACTION I	METHOD:	
	Sample obtain	ed is [x] GRAB; []	COMPOSITE SAMPLE
ON-S	SITE MEASUREMEN		
	Temp: <u>26.</u>	<u>C</u> ° _C	Measured with: Orion Instrument
	рН: <u>г. Ч</u>	140410 pus/co	Measured with:
	Dissolved Over	vgen: (1.12)	Measured with:
	Redox Potenti	$\frac{3}{4}$ al: $\frac{3}{7}$ $\frac{7}{4}$ $\frac{3}{5}$	e Measured with: Orion Instrument Measured with:
	Salinity:		Measured with:
	Nitrate:		Measured with:
	Sulfate:		Measured with:
	Ferrous Iron:		Measured with:
	Other:		
CAN	IDI E CONSMINERS	material number size)	N I A SUMME TO BILLY
SAIV	T T	material, number, size)	method 2 BTEV
	e. 4 1	· CIA 1 1 CC	
	1 H.3	· cm frat	
	SITE SAMPLE TREA	9	
ON-S		TMENT:	
	SITE SAMPLE TREA	TMENT: Method	Containers:Containers:
ON-S	SITE SAMPLE TREA	TMENT: Method	Containers:
ON-S	SITE SAMPLE TREA	TMENT: Method Method Method	Containers:Containers:
ON-5	SITE SAMPLE TREA	TMENT: Method Method Method added:	Containers:Containers:Containers:
ON-5	SITE SAMPLE TREA	TMENT: Method Method Method added: Method	Containers: Containers: Containers: Containers:
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ON-5	SITE SAMPLE TREA	TMENT: Method Method Method added: Method Method Method Method	Containers:Containers:
ON-5	SITE SAMPLE TREA	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
ON-5	Filtration: Preservatives:	Method Me	Containers: Containers: Containers: Containers: Containers: Containers:
ON-5	Filtration: Preservatives: TAINER HANDLING	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
ON-5	Filtration: Preservatives: TAINER HANDLING	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-5	Filtration: Preservatives: TAINER HANDLING [] Contain Contain	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-5	Filtration: Preservatives: TAINER HANDLING [] Contain Contain	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:

GROUND V	VATER SAMPLING RECORD	- MONITORING WELL TIPE - 2	2
			(number)
REASON F	OR SAMPLING: 📝 Regular S	Sampling; [] Special Sampling; /2 3 , 19 55 (4 (ca.m./pm) of ES New	,
DATE AND	TIME OF SAMPLING:	13 3, 1975 14:16a.m./pm	
SAMPLE C	OLLECTED BY: MV / KC	of ES New	
WEATHER	Bi	.17	
DATUM FO	OR WATER DEPTH MEASURI	EMENT (Describe): Top of Well Casing	
MONITORI	NG WELL CONDITION:		
MOMION	[] LOCKED:	[/] UNLOCKED	
	WELL NUMBER (IS - IS NO		
	STEEL CASING CONDITION		
		DITION IS: New	<u> </u>
		EMENT DATUM (IS - IS NOT) APPARENT	
		CTED BY SAMPLE COLLECTOR	
		EQUIRED REPAIR (describe):	
			<u> </u>
Check-off			
l [x]		EFORE USE WITH Alconox, Distilled H2O, ar	
	Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH		FT. BELOW DATUM
2 [^]		Oil/ Water Interface Probe	I. DELOW DATION
	William William		
	WATER DEPTH	3.14 -	FT. BELOW DATUM
	Measured with:	Water Level Probe	
3 [x]		ORE WELL EVACUATION (Describe):	
	Appearance:		
	Odor:	Cotorer	
	Other Comment	s:	
4 [x]	WELL EVACUATION:	March 1 dt	
	Method	2 STARTIC	
	Volume Remove Observations:	Water (slightly-very) cloudy	
	Observations:	Water (signify - very) cloudy Water level (rose - fell - no change)	
		Water odors:	
		Other comments:	<u> </u>

	E EXTIGICATION	METHOD:	
	[] Bailer m	ade of:	
	[x] Pump, ty	pe: Peristaltic Pump	
	[] Other, de	escribe:	
	Sample obtain	ned is [x] GRAB; []	COMPOSITE SAMPLE
ON-SIT	E MEASUREMEN	NTS:	
	Temp: 71	1,2° _C	Measured with: Orion Instrument
	pH: 5_	<u>'2 </u>	Measured with:
	Conductivity:	33 NO US/cm	Measured with:
	Dissolved Ox	ygen: 0.06 may 10	Measured with: Orion Instrument
		ial: Z11.9	Measured with:
	Salinity:		Measured with:
	Nitrate:		Measured with:
	Ferrous Iron		Measured with:
	Other:		Measured with.
			EZ-13TEX, VOC., TU
ON-SITI	E SAMPLE TREA	TMENT:	
		TMENT: Method	Containers:
ON-SITI	E SAMPLE TREA	TMENT: Method Method	
ON-SITI	E SAMPLE TREA	TMENT: Method Method Method	Containers: Containers:
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ON-SIT	E SAMPLE TREA Filtration: Preservatives: INER HANDLING Contain Contain	TMENT: Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-SIT	E SAMPLE TREA Filtration: Preservatives: INER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	E SAMPLE TREA Filtration: Preservatives: INER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:

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SAMPLING	LOCATION MacDill AFB Site OT-24
SAMPLING	DA FE(S) March 1995

GROUND W	ATER SAMPLING RECORD - MONITORING WELL	4 mP - 25
REASON FO DATE AND SAMPLE CO WEATHER:	R SAMPLING: 1 Regular Sampling; [] Special Sampling; [IME OF SAMPLING: 3/3/195, 1995, 15! Sampling; LLECTED BY: MVRC of ES. Denue.	
MONITORIN	G WELL CONDITION: [] LOCKED:	PARENT
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distil Items Cleaned (List): All Equipment used in sampli	
2 [x]	PRODUCT DEPTH NP Measured with: Oil/ Water Interface Probe	FT. BELOW DATUM
	WATER DEPTH WM Measured with: Water Level Probe	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Description of the Comments:	ibe): /_ C.
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water level (rose - fell - no chang Water odors: Other comments:	

SAM			
	Bailer ma	de of:	
	[x] Pump. tvr	e: Peristaltic Pun	np
	1 Other, de	scribe:	
	Sample obtain	ed is [x] GRAB;	[] COMPOSITE SAMPLE
ON-S	TTE MEASUREMEN		
	Temp:	,c	Measured with: Orion Instrument
	pH:		Measured with:
	Conductivity:		Measured with:
	Dissolved Oxy	gen:	Measured with: Orion Instrument
	Redox Potentia	al:	Measured with:
	Salinity:		Measured with:
	Nitrate:		Measured with:
	Sulfate:		Measured with:
	Ferrous Iron:		Measured with:
	Other:		
	·	·	
			size): <u>/- Te</u> H
ON-S	ITE SAMPLE TREAT	TMENT:	
	ITE SAMPLE TREAT	TMENT: Method	Containers:
ON-S	ITE SAMPLE TREAT	MENT: Method Method	
ON-S	ITE SAMPLE TREAT	Method Method Method	Containers: Containers:
on-s	ITE SAMPLE TREAT Filtration:	Method Method Method Method	Containers: Containers: Containers:
on-s	ITE SAMPLE TREAT Filtration:	Method Method Method dded: Method	Containers: Containers: Containers:
on-s	ITE SAMPLE TREAT Filtration:	Method Me	Containers: Containers: Containers: Containers: Containers:
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on-s	ITE SAMPLE TREAT Filtration:	Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers:
ON-S	ITE SAMPLE TREAT Filtration:	Method Me	Containers: Containers: Containers: Containers: Containers: Containers:
ON-S	Filtration: Preservatives a	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
ON-S	Filtration: Preservatives a	Method Me	Containers: Containers: Containers: Containers: Containers: Containers:
ON-S	Filtration: Preservatives a	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-S	Filtration: Preservatives a FAINER HANDLING Containe Containe Containe	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-S	Filtration: Preservatives a	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-S	Filtration: Preservatives a FAINER HANDLING Containe Containe Containe	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND W	ATER SAMPLING RECORD - MONITORING WELL 24MP -	學30
DATE AND SAMPLE CO	OR SAMPLING: [] Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/20 , 19 45	(number)
MONITORIN	IG WELL CONDITION: [] LOCKED: UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: New	
	INNER PVC CASING CONDITION IS: WE WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off I [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH NA / NP Measured with: Oil/ Water Interface Probe	_FT. BELOW DATUM
	WATER DEPTH	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: Other Comments:	
4 [x]	WELL EVACUATION: Method: Perishalfic Pump Volume Removed: 2000 ml Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: Sightly Other comments: milky white	le Color

Ground W	ater Samplin	g Record - Monito	ring Well No 2	$\frac{9 \text{ mP} - 30}{\text{Cont'd}}$				
5 [x]	SAMPL	SAMPLE EXTRACTION METHOD:						
		[] Bailer m	ade of:					
		[x] Pump, type: Peristaltic Pump						
		Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE						
< f)	ON CITI	ON-SITE MEASUREMENTS:						
6 [x]	ON-5111			Measured with: Orion Instru	ment			
		Temp: pH:(- 0.4	Measured with:				
		Conductivity:	7·0·	Measured with:				
		Dissolved Ox	Wash: 12 a	Measured with: Orion Instru				
		Dissolved Ox	tial:	Measured with:	mem -			
		Calinian	.iai	Measured with:				
		Salinity:		Maggired with:				
		Nitrate:		Measured with:				
		Sulfate:	······	Measured with:				
				Measured with:				
		Other.						
7[]	SAMPLI	1-125. TUH	(material, number, s A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12e): 1-25 and A1. 2 x 40 ml BT NI VOC , 317 grab	Ex 5'x 40.ml 58 m/ Authore			
B[]	ON-SITI	ON-SITE SAMPLE TREATMENT:						
	[]	Filtration:	Method	Containers:				
				Containers:				
				Containers:				
	ĺΧΙ	Preservatives	added:					
	/		N.C. allered	C 10°	TEX			
					活			
				Containers: T	OC			
					e THENE			
			Method	Containers:	3114202			
[]	CONTA	CONTAINER HANDLING:						
		[] Contain	ner Sides Labeled ner Lids Taped ners Placed in Ice C	hest				
10[]	OTHER	OTHER COMMENTS:						
,								
								

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Page 2 of 2

GROUND W	ATER SAMPLING RECORD - MONITORING WELL 2	4 mP-35
	_	(number)
REASON FO	OR SAMPLING: [Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/20, 1995 ///. 25 20 OLLECTED BY: MBP/KC of ES	(
DATE AND	TIME OF SAMPLING: 3/10 , 1995 //: 25 20	ı./p.m.
SAMPLE CO	DLLECTED BY: MEN KC OF ES Der wer	•
WEATHER:	Surry - 80°	
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well C	asing
	TO WELL CONDITION	
MONITORI	NG WELL CONDITION: [4-UNLO]	CKED
		CRED
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: New	
	INNER PVC CASING CONDITION IS:	DARCHT
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTO	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Disti	illed H2O and Acetone
1 (*)	Items Cleaned (List): All Equipment used in sample	
	nems Cleaned (Bist). Att Damparent assa in Sampi	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
	Measured with: Oil/ Water Interface Probe	
	7.34	
		FT. BELOW DATUM
	Measured with: Water Level Probe	
	WARDS CONDUCTON DEPONE WELL THACHATION (Days	all A.
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Desc	
	Appearance:	
	Odor:	
	Other Comments:	
4 ()	WELL EVACUATION:	
4 [x]	Method: peristallic pump	
	Volume Removed: 2500 nel	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no chain	ge)
	Water odors: Alight	Sulfuric
	Other comments:	
	Calor Committee	

m:\forms\gwsample.doc Page 1 of 2

		ring Well No. 29	
SAMI	PLE EXTRACTION I	METHOD:	
	[] Bailer ma	ade of:	
	[] Other, de	scribe:	
	Sample obtain	ned is [x] GRAB; [COMPOSITE SAMPLE
ON S	ITE MEASUREMEN		•
014-31		5 ° _C	Measured with: Orion Instrument
	рН:	52	Measured with:
	Conductivity:	49 x10 M5/cm	Measured with:
	Dissolved Ox	ygen: 0.08 mg/	Measured with: Orion Instrument
	Redox Potenti	ial: -238.3m	✓ Measured with:
	Salinity:		Measured with:
	Nitrate:		Measured with:
	Sulfate:		Measured with:
	Ferrous Iron:		Measured with:
	Other:		
	4.	. / 2 . 4	
	250	HACH gra	BTEX, 250 40 ml TUH, 2X 1-50 ml MeTHANE
ON-SI	TE SAMPLE TREA	HACH gra	1-50 ml MeTHANI
	TE SAMPLE TREA	TMENT:	B.
on-si []	250	TMENT: Method	Containers:
	TE SAMPLE TREA	TMENT: Method Method	B.
	TE SAMPLE TREA	TMENT: Method Method Method	Containers: Containers:
[]	TE SAMPLE TREAT	TMENT: Method Method Method added:	Containers: Containers: Containers:
[]	TE SAMPLE TREAT	TMENT: Method Method added: Method	Containers: Containers: Containers: Containers:
[]	TE SAMPLE TREAT	TMENT: Method Method added: Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
[]	TE SAMPLE TREAT	MACH GOOD TMENT: Method Method added: Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: TVH Containers: Me THANE
[]	TE SAMPLE TREA' Filtration: Preservatives	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: T'H Containers: Me 7 HANE
[]	TE SAMPLE TREAT	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: TVH Containers: Me THANE
[]	TE SAMPLE TREA' Filtration: Preservatives: AINER HANDLING [4 Contain [] Contain	Method Me	Containers: Contai
[]	Filtration: Preservatives: AINER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers: VOC
[]	Filtration: Preservatives: AINER HANDLING Contain Contain	Method Me	Containers: Contai
[]	Filtration: Preservatives: AINER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers: VOC
[]	Filtration: Preservatives: AINER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers: VOC

SAMPLING	LOCATION MacDill AFB Site OT-24
SAMPLING	DATE(S) March 1995

GROUND 1	WATER SAMPLING RECORD - MONITORING WELL $= 24 i R^2$	<i>y 5</i>
		(number)
REASON F	OR SAMPLING: Regular Sampling; Special Sampling;	
DATEANL	OK SAMPLING: 7 Regular Sampling, 7 Special Sampling, O TIME OF SAMPLING: 3/74, 19 45 1/50 pm. COLLECTED BY: 6 ES De marching. OF ES De marching.	
SAMPLEC	OLLECTED BY: MACTICE OF 155 172 14 57 6	
DATUMER	DR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
	DR WATER DEPTH MEASUREMENT (Describe). Top of Well Cashing	
MONITOR	ING WELL CONDITION:	
	[] LOCKED: [] UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: New	
	INNER PVC CASING CONDITION IS:	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, a	
	Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
~ (.v.)	Measured with: Oil/ Water Interface Probe	
	***************************************	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance: Brown L Crowly Odor: A P	
	Odor:	
	Other Comments:	
4 [x]	WELL EVACUATION: Method: Volume Removed: 7 500 mm/	
	Volume Removed: -z 500 mil	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no change)	
	Water odors:	
	Other comments:	

	[] Other, des	scribe:	
	Sample obtain	ed is [x] GRAB; []	COMPOSITE SAMPLE
ON-SITE	E MEASUREMEN	TS:	
(7)		°C	Measured with: Orion Instrument
	pH: C.	.64	Measured with:
	Conductivity:	108110	Measured with:
	Dissolved Oxy	gen: (2, 35)	Measured with: Orion Instrument
	Redox Potentia	al: <u>'j't.y</u>	Measured with:
	Salinity:		Measured with:
	Nitrate:		Measured with:
	Sulfate:		Measured with:
	Ferrous Iron:		Measured with:
SAMPLE	E CONTAINERS (1	material, number, size) ロンメ 、いつこ j	TUH HARA BLOOM
	E CONTAINERS (1) Z - 13 E SAMPLE TREAT	TMENT: Method Method	Containers:Containers:
on-site	E SAMPLE TREAT	TMENT: Method Method	Containers;
on-site	E SAMPLE TREAT	MENT: Method Method Method	Containers:Containers:
on-site	E SAMPLE TREAT	MENT: Method Method Method Method	Containers: Containers: Containers:
on-site	E SAMPLE TREAT	Method Me	Containers: Containers: Containers: Containers:
on-site	E SAMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers:
on-site	E SAMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers:
ON-SITE	E SAMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	Filtration: Preservatives a	Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	Filtration: Preservatives a INER HANDLING Contain Contain	Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	Filtration: Preservatives a INER HANDLING Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:

GROUND V	VATER SAMPLING RECORD - MONITORING WELL 24MP - 50
DATE AND SAMPLE CO	OR SAMPLING: [Regular Sampling; [] Special Sampling; OTIME OF SAMPLING:3/2 - /9 \ , 19 95 \(\cdot \gamma
DATOMIC	NATER DEFTH MEASUREMENT (Describe). Top of well Casing
MONITORI	NG WELL CONDITION:
MONITOR	[] LOCKED: [Q'UNLOCKED
	WELL NUMBER (IS - IS NOT) APPARENT
	STEEL CASING CONDITION IS: NEW
	INNER PVC CASING CONDITION IS: NEW
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
	[] MONITORING WELL REQUIRED REPAIR (describe):
C1 - 1 - CC	
Check-off	COLUDATATE OF PARED DEPONDENCE MUTTILAL CONTRACTOR AND A PARENT
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone Items Cleaned (List): All Equipment used in sampling
	Tems Cicated (Eist). An Equipment used in Sampring
2 [x]	PRODUCT DEPTHFT. BELOW DATU
	Measured with: Oil/ Water Interface Probe
	2
	WATER DEPTH Not measured FT. BELOW DATU
	Measured with: Water Level Probe
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):
2 [^]	· · · · · · · · · · · · · · · · · · ·
	Appearance:Odor:
	Other Comments:
4 [x]	WELL EVACUATION:
	WELL EVACUATION: Method: perstaltic pump Volume Removed: 1500 ml
	Volume Removed: 1500 ml
	Observations: Water (slightly - very) cloudy
	Water level (rose - fell - no change)
	Water odors: none noticable
	Other comments:

m:\forms\gwsample.doc Page 1 of 2

[] Bailer made of: [x] Pump, type: _Peristaltic Pump [] Other, describe: Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS: Temp: o _C Measured with: _Orion Instrument	SAMPI	LE EXTRACTION 1			
Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS: Temp: ° _ C Measured with: Orion Instrument					
Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS: Temp: ° C Measured with: Orion Instrument		[x] Pump, ty	pe: <u>Peristaltic Pump</u>		
Sample obtained is [x] GRAB; [] COMPOSITE SAMPLE ON-SITE MEASUREMENTS: Temp: ° _C		[] Other, de			
Temp: oC Measured with: Orion Instrument		Sample obtain			
pH:	ON-SIT	E MEASUREMEN	TS:		
pH:		Temp:	°C		
Conductivity:		pH:		Measured with:	
Redox Potential:		Conductivity:		Measured with:	
Salinity: Measured with: Nitrate: Measured with: Sulfate: Measured with: Ferrous Iron: Measured with: Other: Other: SAMPLE CONTAINERS (material, number, size): ON-SITE SAMPLE TREATMENT: [] Filtration: Method Containers: Method Container		Dissolved Ox	/gen:	Measured with: Orion Instrument	
Nitrate:				Measured with:	
Sulfate:				Measured with:	
Ferrous Iron:		Nitrate:		Measured with:	
Other: SAMPLE CONTAINERS (material, number, size): ON-SITE SAMPLE TREATMENT: [] Filtration: Method Containers:		Sulfate:			
SAMPLE CONTAINERS (material, number, size): ON-SITE SAMPLE TREATMENT: [] Filtration: Method Containers: Method Containers: Method Containers: Method Containers: Method Containers: Containers: Method Containers: Method Containers: Method Method		Ferrous Iron:			
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OTHER COMMENTS:	ON-SIT	Filtration: Preservatives AINER HANDLING	Method Method added: Method Method Method Method Method Method Method Sicer Sides Labeled	Containers: Containers: Containers: Containers: Containers: Containers:	
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SAMPLING	LOCATION	MacDill AFB Site OT-2	4
SAMPLING	DATE(S) Ma	arch 1995	

GROUND V	WATER SAMPLING RECORD	- MONITORING WELL.	24 mm	51)
DATE AND SAMPLE C	TIME OF SAMPLING: 3/1 OLLECTED BY: MV+KC : S	of ES 1) Constitution of Well	a.m./p.m.	(number)
MONITORI	NG WELL CONDITION:			
	[] LOCKED: WELL NUMBER (IS - IS NO	OT) APPARENT	LOCKED	
	INNER PVC CASING CONDITION	ON IS: /r Cz-		
	WATER DEPTH MEASURI	EMENT DATUM (IS - IS NOT) CCTED BY SAMPLE COLLEC REQUIRED REPAIR (describe):	APPARENT FOR	
Check-off 1 [x]		EFORE USE WITH Alconox, D List): All Equipment used in san		
2 [x]	PRODUCT DEPTH	Oil/ Water Interface Probe		FT. BELOW DATUM
	WATER DEPTH			FT. BELOW DATUM
3 [x]	Appearance: Odor:	ORE WELL EVACUATION (De		
4 [x]	WELL EVACUATION: Method:			
	Volume Remov Observations:	ed:		
	Ooser varions:	Water (slightly - very) cloudy Water level (rose - fell - no ch Water odors:	ange)	
		Other comments:		

m.\forms\gwsample.doc Page 1 of 2

	[x] Pump, ty	pe: Peristaltic Pump	
	Sample obtain	ned is [x] GRAB; [COMPOSITE SAMPLE
ON-SIT	E MEASUREMEN		
		. <u>Y.1</u> ° _C	Measured with: Orion Instrument
	<u>ما</u>	65	Measured with:
	Conductivity:	159410	Measured with:
		ygen: ial:6 o . 4	Measured with: Orion Instrument Measured with:
	Salinity:		Measured with:
	Nitrate:	A A STATE OF THE PARTY OF THE P	Measured with:
	Sulfate:		Measured with:
	Ferrous Iron:		Measured with:
	Other:		
SAMPL	2 - 13	TFX', VÓC.): 1-milh Bain Hitself
	E SAMPLE TREA Filtration:	TMENT:	
ON-SIT	E SAMPLE TREA	TMENT: Method Method	Containers:Containers:
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_ (Cont'd)

Ground Water Sampling Record - Monitoring Well No. 29-mp

m:\forms\gwsample doc Page 2 of 2

GROUND V	VATER SAMPLING RECORD - MONITORING WELL 24 _ mp55	
		(number)
REASON FO	OR SAMPLING: [4] Regular Sampling; [] Special Sampling;	
DATE AND	TIME OF SAMPLING: 3/20, 1995 08:50 201/p.m.	
SAMPLE C	OLLECTED BY: MV/KC/JF of ES Deaver	
WEATHER	Sun -75-80	
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
MONITORI	NG WELL CONDITION:	
MONTOR	[] LOCKED: [4 UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	ammer a contra marriage and a second	
	INNER PVC CASING CONDITION IS: NE W	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	· · · · · · · · · · · · · · · · · · ·
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
	[] MONITORING WELL REQUIRED REPAIR (describe).	
Check-off		
l [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and	i Acatona
ι [Χ]	Items Cleaned (List): All Equipment used in sampling	
	items Cleaned (List). An Equipment used in Sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
• •	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH 3.48	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance:	
	Odor:	
	Other Comments:	
4 [x]	WELL EVACUATION:	
	Method: peristalt. Pamp	
	Volume Removed: 2000 ml	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no change)	
	Water odors: Alight	
	Other comments: Grown Color is	1. In.lle

	SAMPLI	E EXTRACTION M	IETHOD:		
		[] Bailer mad	de of:		
		[x] Pump, typ	e: Peristaltic Pump		
		[] Other, des	cribe:		
		Sample obtaine	ed is [x] GRAB; []	COMPOSITE SAMPLE	
	ON-SITE	E MEASUREMENT			
		Temp: 20	,6_° _C	Measured with: Orion Instrum	
		pH:6_8	78 x 10 ms/cm	Measured with:	
		Conductivity: _	78 40 Ms/cm	Measured with:	
		Dissolved Oxy	gen: 1.31 mg/ il: -186.5 mV	Measured with: Orion Instrum	
		Redox Potentia	11: -186.5 mV	Measured with:	
		Salinity:		Measured with:	
		Nitrate:		Measured with:	
		Sulfate:		Measured with:	
		Ferrous Iron:		Measured with:	·
		Other:			
		*** **********************************		1-750 ml unpres. Al Ex; 2-40 ml TVH	; 23-40 ml
	ON-SITE	E SAMPLE TREAT	MENT:		
		*** **********************************	MENT: Method	Containers:	
	ON-SITE	E SAMPLE TREAT	MENT: Method Method	Containers:	
	ON-SITE	E SAMPLE TREAT	MENT: Method Method	Containers:	
	ON-SITE	E SAMPLE TREAT	MENT: Method Method Method	Containers: Containers: Containers:	
	ON-SITE	E SAMPLE TREAT Filtration:	MENT: Method Method Method	Containers: Containers: Containers:	
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	ON-SITE	E SAMPLE TREAT Filtration:	MENT: Method Method dded: Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
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	ON-SITE	E SAMPLE TREAT Filtration: Preservatives as	MENT: Method Method Method dded: Method	Containers: Containers: Containers: Containers: Containers: Containers:	
	ON-SITE	E SAMPLE TREAT Filtration: Preservatives as	MENT: Method	Containers: Containers: Containers: Containers: Containers: Containers:	
	ON-SITE	E SAMPLE TREAT Filtration: Preservatives as	MENT: Method Method Method dded: Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
	ON-SITE	Filtration: Preservatives as INER HANDLING: [Containe [] Containe	MENT: Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	
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1	ON-SITE	Filtration: Preservatives as INER HANDLING: [Containe [] Containe	MENT: Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	
1	ON-SITE	Filtration: Preservatives and Containe [] Containe [] Containe	MENT: Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	

SAMPLING	LOCATIO	N MacDill	AFB Site OT-24
SAMPLING	DATE(S)	March 1995	

GROUND V	VATER SAMPLING RECORD - MONITORING WELL. 2409 –	65
REASON FO	OR SAMPLING: [Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/2/ , 19/5 21/0 a.m./pch. OLLECTED BY: MV / KC of ES OF OF OR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	(number)
MONITORI	NG WELL CONDITION:	
	[] LOCKED: [/] UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: 100 CCC	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, an Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
2 (^)	Measured with: Oil/ Water Interface Probe	
		FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: Other Comments:	
4 [x]	WELL EVACUATION: Penstaltic	
	Volume Removed: 2500	
	Observations: Water (slightly - very) cloudy Water level (rose - fell - no change)	
	Water odors:	
	Other comments:	

SAMP	LE EXTRACTION	METHOD:		
	l l Bailer m	ade of:		
	[x] Pump, ty	pe: Peristaltic Pump		*
	 			
	Sample obtain	ned is [x] GKAB; []	COMPOSITE SAMPLE	
ON-SI	TE MEASUREMEN			
	Temp:	<u>/.</u> 4_° _C	Measured with: Orion Instrument	
	pH:	83 x 11) x15/cm	Measured with:	
	Conductivity:	85 × 10 105/cm	Measured with:	
	Dissolved Ox	ygen: 0.1/ 24/6	Measured with: Orion Instrument	
		ial: <u>-139.8 ml</u>	Measured with:	
	Salinity:		Measured with:	
	Nitrate:		Measured with:	
	Ferrous Iron:		Measured with:	
	Other:		Wild Will .	
SAMP	LE CONTAINERS ((material, number, size):	1- Too methode for	A Alexander
	LE CONTAINERS (1- Too methane, for	Aire
ON-SI	TE SAMPLE TREA	TMENT:		
		TMENT:	Containers:	
ON-SI	TE SAMPLE TREA	TMENT: Method Method		
ON-SI	TE SAMPLE TREA	TMENT: Method Method Method	Containers: Containers:	
on-si	TE SAMPLE TREA Filtration:	TMENT: Method Method Method Method	Containers: Containers: Containers:	
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ON-SI*	TE SAMPLE TREA Filtration: Preservatives	TMENT: Method Method Method added: Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
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ON-SI*	Filtration: Preservatives AINER HANDLING [] Contain [] Contain	TMENT: Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SI	Filtration: Preservatives AINER HANDLING [] Contain [] Contain	Method	Containers: Containers: Containers: Containers: Containers: Containers:	

m:\forms\gwsample.doc

Page 2 of 2

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

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GROUND V	VATER SAMPLING RECORD - MONITORING WELL <u>24 MP - 70</u>
	(number)
REASON FO	OR SAMPLING: [X] Regular Sampling; [] Special Sampling;
DATE AND	TIME OF SAMPLING: 3/16, 1995 07:45 m./
SAMPLE CO	OLLECTED BY: MOKC/DD of ES Denur Portly Claudy ^65°F
WEATHER:	Partly Cloudy 165°F
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing
MONITORI	NG WELL CONDITION:
	[] LOCKED: MUNLOCKED
	WELL NUMBER (IS - IS NOT) APPARENT
	STEEL CASING CONDITION IS: New
	INNER PVC CASING CONDITION IS: New
	WATER DEPTH MEASUREMENT DATUM (IS - ISDOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
	MONITORING WELL REQUIRED REPAIR (describe):
Check-off	
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone
	Items Cleaned (List): All Equipment used in sampling
2 [x]	PRODUCT DEPTHFT. BELOW DATUM
	Measured with: Oil/ Water Interface Probe
	WATER DEPTH not precured FT. BELOW DATUM
	Measured with: Water Level Probe
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):
	Appearance:
	Odor:
	Other Comments:
4.51	WELL BULGULATION
4 [x]	WELL EVACUATION:
	Method: feristaltic pump
	Volume Removed: 1000 ml
	Observations: Water (slightly - very) cloudy - milky while
	Water level (rose - fell - no change)
	Water odors: No noticable odor
	Other comments: Sheen present in water

Ground Water	Sampling Re	cord - Monitoring	g Well No) 4 /	MA-7D (Cont'd)	
5 [x]	SAMPLE EX	CTRACTION ME	ETHOD:		
		[x] Pump, type: [] Other, descr	Peristaltic Pump ibe:	COMPOSITE SAMPLE	
6 [x]		EASUREMENTS Temp: 22.3 pH: 6, Conductivity: 3 Dissolved Oxyge Redox Potential: Salinity: Nitrate: Sulfate: Ferrous Iron: Other:	C	Measured with: Orion Instrument Measured with: Measured with: Measured with: Orion Instrument Measured with: Measured with: Measured with: Measured with: Measured with: Measured with:	
7[]	SAMPLE CO	1-125 ml	BTEX) P	1-250 ml impreserved A Anions reserved	
8[]		MPLE TREATM	Method	Containers:Containers:Containers:	
	[]	Preservatives add	Method Method Method	Containers: Containers: Containers: Containers:	
9[]	CONTAINE	[] Container	Sides Labeled Lids Taped s Placed in Ice Chest		
10[]	OTHER COI Samples Slabili Londy	MMENTS: *D. locken zed. Sanpi clivity had	O. not ca after CH les Shipped probe cap	librated; conductivity, and D.o in ice Left on	, lad

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GROUND V	VATER SAMPLING RECORD - MONITORING WELL TY IM P - 71)
DATE AND SAMPLE CO	OR SAMPLING: [Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/2/ , 19 75 8 30 a m/p.m. OLLECTED BY: MY/KC of ES , or of ES , or of Well Casing	(number)
MONITORI	NG WELL CONDITION: [] LOCKED: WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off i [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, an Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
	WATER DEPTH	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: און אין אין אין אין אין אין אין אין אין אי	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (skightly - very) cloudy Water level (rose - fell - no change) Water odors: Other comments:	

round W	ater Sampling	g Record - Monitorin	ng Well Now 4-mp	(Cont'd)			
[x]	SAMPLE	E EXTRACTION M	ETHOD:				
		[] Bailer mad	e of:				
		[x] Pump, type	: Peristaltic Pump				
		[] Other, desc	cribe:				
		Sample obtained	d is [x] GRAB; [] COMPOSITE SAMPLE			
5 [x]	ON-SITE	ON-SITE MEASUREMENTS:					
. ,		Temp: <u>24.0</u>	° C	Measured with: Orion Instrument YSI			
		pH:	. 73	Measured with:			
		Conductivity:	36- 3 110	Measured with:			
		Dissolved Oxyg		Measured with: Orion Instrument 957			
		Redox Potential		Measured with:			
		Salinity:		Measured with:			
		Nitrate:		Measured with:			
		Sulfate:		Measured with:			
		Ferrous Iron:		Measured with:			
		Outor					
[]	SAMPLE	E CONTAINERS (m	aterial, number, size	:):			
[]	ON-SITE	SAMPLE TREATI	MENT:				
	[]	Filtration:	Method	Containers:			
				Containers:			
			Method	Containers:			
	[]	Preservatives ad	lded:				
			Method	Containers:			
				Containers:			
			Method	Containers:			
			Method	Containers:			
[]	CONTAI	NER HANDLING:					
		[] Contains	. Cidaa I ahalad				
			r Sides Labeled r Lids Taped				
		[] Container					
		[] Container	rs Placed in Ice Ches	st			
) []	OTHER ([] Container					
)[]	OTHER (
)[]	OTHER (

e

GROUND V	WATER SAMPLING RECORD - MONITORING WELL 24 MP - 75	
		(number)
REASON FO	OR SAMPLING: [4] Regular Sampling; [7] Special Sampling;	•
DATE AND	OTIME OF SAMPLING: 3/16 , 19 99 08:45 acm/p.m. OLLECTED BY: MYV KC/03 of ES tenser	
SAMPLE CO	OLLECTED BY: MYXKC OF of ES De nur	
WEATHER:	: Partie Cloude ~ 70°F	
DATUM FO	DR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
MONITORI	ING WELL CONDITION:	
	LOCKED: M UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	INNER PVC CASING CONDITION IS: New	
	WATER DEPTH MEASUREMENT DATUM (IS - ISAOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	sirrueged yes
	MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and A	
	Items Cleaned (List): All Equipment used in sampling	
	- Area -	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
~ ()	Measured with: Oil/ Water Interface Probe	,
	WATER DEPTH	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance:	
	Odor:	
	Other Comments:	
4 [x]	WELL EVACUATION:	
4 [٨]	Method: Deristatic pump	
	Volume Removed: 2500 ml	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no Change)	
	Water odors: rederate odor	S. Kuric Small
	Other comments: No Significant 5	
	Chief Conditions.	

SAM	IPLE EXTRACTION	METHOD:	
	[] Bailer ma	ade of:	
	[x] Pump, ty	pe: Peristaltic Pump	
	[] Other, de	escribe:	
	Sample obtain	ned is [x] GRAB; [] COMPOSITE SAMPLE
ON-	SITE MEASUREMEN	ITS:	
	Temp: 21.	<u>ي</u> °C	Measured with: Orion Instrument
	pH: 6.6	7	Measured with:
	Conductivity:	98×10 45/5m	Measured with:
	Dissolved Ox	ygen:	Measured with: Orion Instrument
	Redox Potenti	ial:	Measured with:
	Salinity:		Measured with:
	Nitrate:		Measured with:
	Sulfate:		Measured with:
	Ferrous Iron:		Measured with:
SAM	1-725 A 2-40 n	al unpres.	e): 1-20 ml unpresserved Alkalin' erned Anion reserved
	1-725 A 2-40 n	al unpres- al BTEY) p	erued Anion
ON-:	1- 72.5 A 2- 40 A 2 - 40 A	TMENT:	neserved
	1-725 A 2-40 A 2-40 A	TMENT:	containers:
ON-:	1- 72.5 A 2- 40 A 2 - 40 A	TMENT: Method Method	neserved
ON-:	1- 72.5 A 2- 40 A 2 - 40 A	TMENT: Method Method Method	Containers: Containers:
on-: []	1- 725 a 2- 40 a 2- 40 a SITE SAMPLE TREAT	TMENT: Method Method Method Method Method	Containers: Containers: Containers:
on-: []	1- 725 a 2- 40 a 2- 40 a SITE SAMPLE TREAT	TMENT: Method Method Method Method Method Method Method	Containers: Containers: Containers:
on-: []	1- 725 a 2- 40 a 2- 40 a SITE SAMPLE TREAT	TMENT: Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers:
on-: []	1- 725 a 2- 40 a 2- 40 a SITE SAMPLE TREAT	TMENT: Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers:
on-: []	1-725 A 2-40 A 3-40 A SITE SAMPLE TREA Filtration: Preservatives	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers:
on-: []	1- 725 a 2- 40 a 2- 40 a SITE SAMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers:
on-: []	Filtration: Preservatives [] Contain [] Contain	TMENT: Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-:	Filtration: Preservatives [] Contain [] Contain	TMENT: Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:

m:\forms\gwsample.doc
Page 2 of 2

GROUND V	VATER SAMPLING RECORD - MONITORING WELL 79 mg.	7.5
DATE AND SAMPLE CO WEATHER:	OR SAMPLING: [] Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/2//#, 19 // a.m./p.m. OLLECTED BY: MV / KC of ES R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	(number)
MONITORI	NG WELL CONDITION: [] LOCKED: WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH ALL P	FT. BELOW DATUM
	WATER DEPTH 2 41 Measured with: Water Level Probe	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: Other Comments:	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: Other comments:	

S	SAMPLE E	XTRACTION !	METHOD:		
		[] Bailer ma	ide of:		
		[x] Pump, ty	pe: Peristaltic Pump		
		Sample obtain	ed is [x] GRAB; [] COMPOSITE SAMPLE	
C	N-SITE M	1EASUREMEN	TS:		
_			°C	Measured with: Orion Instrument	
		pH:		Measured with:	
		pH: Conductivity:	9'21/0	Measured with:	
		Dissolved Oxy	/gen:	Measured with: Orion Instrument	
		Redox Potenti	al:	Measured with:	
		Salinity:		Measured with:	
		Nitrate:	·	Measured with:	
		Sulfate:	·	Measured with:	
		Ferrous Iron:		Measured with:	
		Other:			
				e):	
		ONTAINERS (TMENT:		
0			ΓΜΕΝΤ: Method	Containers:	
0	ON-SITE SA	AMPLE TREAT	FMENT: Method Method	Containers: Containers:	
0	ON-SITE SA	AMPLE TREAT	FMENT: Method Method	Containers:	
0	ON-SITE SA	AMPLE TREAT	FMENT: Method Method Method	Containers: Containers:	
0	on-site sa	AMPLE TREAT	FMENT: Method Method Method Method	Containers: Containers: Containers:	
0	on-site sa	AMPLE TREAT	Method Method Method Method Mdded: Method	Containers: Containers: Containers:	
0	on-site sa	AMPLE TREAT	Method Method Method Mdded: Method Method	Containers: Containers: Containers: Containers:	
0	on-site sa	AMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
)	on-site sa 1	AMPLE TREAT Filtration: Preservatives a	Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers:	
)	on-site sa 1	AMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
)	ON-SITE SA	AMPLE TREAT Filtration: Preservatives a ER HANDLING Contain Contain	Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	
O [ON-SITE SA	Filtration: Preservatives a Contain Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	
C C	ON-SITE SA	Filtration: Preservatives a Contain Contain Contain	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND W	ATER SAMPLING RECORD - MONITORING WELL 24 mp - 8	D
		(number)
	R SAMPLING: [4 Regular Sampling; [] Special Sampling;	, ,
DATE AND	TIME OF SAMPLING: 3/20, 1945 13:25 a.m./pcm	
SAMPLE CO	OLLECTED BY: MYKC of ES Denu-	
WEATHER:	Survey - Boor	
DATOM FOI	R WATER DEPTH MEASUREMENT (Describe): Top of Val Casing	
MONITORIN	NG WELL CONDITION:	
	[] LOCKED: [UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: New	
	INNER PVC CASING CONDITION IS:	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
		· · · · · · · · · · · · · · · · · · ·
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and	Acetone
. ,	Items Cleaned (List): All Equipment used in sampling	
2.5-3	PRODUCT DEPTH NP	ET DELOW DATINA
2 [x]	Measured with: Oil/ Water Interface Probe	FT. BELOW DATUM
	Measured with. Oh water interface Probe	
	WATER DEPTH NM	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance:	
	Odor:	
	Other Comments:	
4 fu3	WELL EVACUATION.	
4 [x]	WELL EVACUATION:	
	Method: Perstaltic Purp Volume Removed: 2 500 ml	
	Observations: Water (slightly - very) cloudy	
	Water leve: (rose - fell - no change)	
	Water odors: None	
	Other comments:	

	[x] Pump, typ	e: Peristaltic Pum	mp
	Sample obtaine	d is [x] GRAB;	[] COMPOSITE SAMPLE
ON-SIT	Redox Potentia	7 ° C 65 [69 \ 1] gen: 0.14	Measured with:
	Salinity:		Measured with: Measured with: Measured with: Measured with:
SAMPL	E CONTAINERS (n An ion 2 × 46 2 - 256	naterial, number, s > Vone nd Voc	size): 1-250 ml NICACIALTY 1-125 LISTEX, 2×40 ml TUH, 1×50 ml published Wach Bans (DOP)
	E CONTAINERS (n Anion 2 × 4/2 2 - 250 E SAMPLE TREAT		size): 1-250 ml NEAC arry 1-1250 ml BTEX, 2×40 ml TVH, 1×50 ml maklane, Wack Bans (200)
		MENT: Method Method	Size): 1-250 and NUACONTY 1-123 BTEX, 2 × 40 and TVH, 1 × 50 and preklame Wack Garis (200) Containers: Containers: Containers:
ON-SIT	E SAMPLE TREAT	MENT: Method Method Method	Containers:Containers:
ON-SIT	E SAMPLE TREAT Filtration:	MENT:	Containers:Containers:
ON-SIT	E SAMPLE TREAT Filtration:	MENT: Method Method dded: Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: VOC
ON-SIT	Filtration: Preservatives and INER HANDLING: Containe Containe	MENT: Method Method dded: Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers: VOC Containers: Co

Ground Water Sampling Record - Monitoring Well No. ____ 4 m P ED (Cont'd)

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND V	VATER SAMPLING RECORD	- MONITORING WELL	: 4 mp-8:	5
				(number)
	OR SAMPLING: [] Regular S			
DATE AND	TIME OF SAMPLING:	, 19	a.m./p.m.	
SAMPLE C	OLLECTED BY: MV/KC	of <u>ES</u>	***	
	NA WATER DEPTHACE A CHRIS	73 473 177 (D		
DATUM FC	R WATER DEPTH MEASURI	EMENT (Describe): Top of	Well Casing	
MONITORI	NG WELL CONDITION:	······································		
	[] LOCKED:	[1	UNLOCKED	
	WELL NUMBER (IS - IS NO			
	STEEL CASING CONDITION	ON IS:		
	INNER PVC CASING CON	DITION IS:		
	WATER DEPTH MEASURE			
	[] DEFICIENCIES CORRE			
	[] MONITORING WELL F	REQUIRED REPAIR (descri	be):	

Check-off				
1 [x]	EQUIPMENT CLEANED BI	FFORE USE WITH Alconor	Distilled U2O at	nd Acetone
ו נאן		List): A. Equipment used in		
2 [x]	PRODUCT DEPTH			FT. BELOW DATUM
	Measured with:	Oil/ Water Interface Probe		
	WATER REPORTE			PT BELOW DATEM
	WATER DEPTH	Water Level Probe		FT. BELOW DATUM
	Measured with.	water Level Plobe		
3 [x]	WATER-CONDITION BEFO	ORE WELL EVACUATION	(Describe):	
2 [7]		THE WEED EVACORITION		
		S:		
4 [x]	WELL EVACUATION:			
	Method:		···	
	Volume Remov			
	Observations:	Water (slightly - very) clos		
		Water level (rose - fell - no	0 /	
		Water odors:		
		Other comments:		

nd W	ater Samplin	g Record - Monitor	ing Well No. 2	1m P-S) (Cont'd)
	SAMPL	E EXTRACTION I	METHOD:	
		[] Bailer ma	ide of:	
				φ
		[] Other, de	scribe:	
		Sample obtain	ed is [x] GRAB;	[] COMPOSITE SAMPLE
:]	ON-SIT	E MEASUREMEN		
		Temp: 1	° _C_	Measured with: Orion Instrument
			-06	Measured with:
		Conductivity:	23x18	Measured with:
		Dissolved Oxy	/gen:	Measured with: Orion Instrument
			al:	Measured with:
		Salinity:		Measured with:
		Nitrate:		Measured with:
		Sulfate:		Measured with:
		Ferrous Iron:		Measured with:
		Other:		
]	SAMPL			iize):
]	ON-SIT	E SAMPLE TREA	TMENT:	
	[]	Filtration:	Method	Containers:
	()			Containers:
				Containers:
	[]	Preservatives	added:	
			Madead	Containan
				Containers:
				Containers:Containers:
				Containers:
			wiethod	Contamers.
]	CONTA	INER HANDLING	i:	
		[] Contain	er Sides Labeled	
		L]	er Lids Taped	
			ers Placed in Ice Cl	hest
		() Comain	ers r raced in rec er	ilicot
]	OTHER	COMMENTS:		

GROUND V	WATER SAMPLING RECORD - MONITORING WELL $\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	
		(number)
REASON F	OR SAMPLING: [X] Regular Sampling; [] Special Sampling;	
DATE AND	TIME OF SAMPLING: 3/15, 19 95 14:00 a.m./p.m.	
SAMPLE C	OLLECTED BY: MV/KC/TD of ES Nemuz : Partly Sunay ~75°F	
WEATHER	: Partly Survey ~ 75 F	
DATUM FO	OR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
MONITORI	NG WELL CONDITION:	
Montrold	[] LOCKED: My UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: NEW	
	INNER PVC CASING CONDITION IS: NEW	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
	•	
Check-off		
i [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, ar	
	Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
2 ()	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH 1d meaning	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance:	
	Odor:	
	Other Comments:	
4 ()	WELL PLACELATION.	
4 [x]	WELL EVACUATION: Method: Perfstatic punp	
	Volume Removed: 2000 ml	
	Observations: Water (slightly - very) cloudy	
	Water level (man fell manhaire)	,
	Water odors: Moderale o	dor
	Other comments:	

5 [x]	SAMPLE	EXTRACTION	METHOD:			
		[x] Pump, ty	pe: Peristaltic Pump			
		Sample obtain	ned is [x] GRAB; []	COMPOSITE SAMPLE		
6 [x]	ON-SITE	pH:	9 ° C 6 148 ×10 145/5 ygen: 0.56 mg/l	Measured with: Orion Installed Measured with: Measured with: Measured with: Orion Installed Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with:	strument	
7[]	SAMPLE 済	2- 40	(material, number, size) Un preserve MBTEX HOM TVH	: 1-250 ml comp ed Anions I preserved	neerud 1	f 1 Kaline
8[]	ON-SITE	SAMPLE TREA	TMENT:			
	[]	Filtration:	Method	Containers: Containers: Containers:		
	[]	Preservatives	added:			
			Method	Containers: Containers: Containers: Containers:		
9[]	CONTAIN	NER HANDLING	3 :			
		[] Contair	ner Sides Labeled ner Lids Taped ners Placed in Ice Chest			
10[]	OTHER C Sim (Stab * **Anion Stab	OMMENTS: 3 Oles take 1128 Somple out and	d.O. not en after w parend in taken a Been nos	ICE flier purps	ns while	5-land 1

Ground Water Sampling Record - Monitoring Well No. 24 M F - 9D (Cont'd)

GROUND W	VATER SAMPLING RECORD - MONITORING WELL 21/21/2-	- G D
		(number)
REASON FO	OR SAMPLING: [1] Regular Sampling; [1] Special Sampling;	
DATE AND	TIME OF SAMPLING: 2/2/ , 19 4 / 2 a.m./p.m.	
SAMPLE CO	OLLECTED BY: MV/KC of ES //w	
WEATHER:	DLLECTED BY: MV/KC of ES On a.m./p.m. R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
MONITORI	NG WELL CONDITION:	
	[] LOCKED: [/]-UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS:	
	STEEL CASING CONDITION IS:	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
	[] MONITORING WELL REQUIRED REPAIR (describe)	
Charles 66		
Check-off	FOUR WATER OF BANES DEFOND HER WHILE ALL D D 1100	9.4
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, ar	
	Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
2 [7]	Measured with: Oil/ Water Interface Probe	
	WATER DEPTH	FT. BELOW DATUM
	Measured with: Water Level Probe	F1. BELOW DATOM
	ivieasured with. Water Level F1006	
2 []	WATER CONDITION RECORD WELL EVACUATION (Describe).	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance: MILLY with	
	Other Comments:	
4 [x]	WELL EVACUATION:	
	Method: find printellic	
	Volume Removed:	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell - no change)	
	Water odors:	
	Other comments:	

SAMIL	JE ENTIQUE HOW I	METHOD:		
	[] Bailer ma	de of:		
	[] Other, des	scribe:		
	Sample obtaine	ed is [x] GRAB; []	COMPOSITE SAMPLE	
ON-SITE MEASUREMENTS:				
	Temp: 7-2.	<u> </u>	Measured with: Orion Instrument	
	pH: ن	84	Measured with:	
	Conductivity:	57410 ps/m	Measured with:	
	Dissolved Oxy	gen: 0.25 mg/i	Measured with: Orion Instrument	
		al: <u>- フル。</u>	Measured with:	
	Salinity:	the state of the s	Measured with:	
	Nitrate:		Measured with:	
	Sulfate:		Measured with:	
	Ferrous Iron: _		Measured with:	
SAMPI	.F. CONTAINERS (r	naterial, number, size):		
	e community (
ON-SIT	E SAMPLE TREAT	MENT:		
		MENT: Method	Containers:	
ON-SIT	E SAMPLE TREAT	MENT: Method Method		
ON-SIT	E SAMPLE TREAT	MENT: Method Method Method	Containers:Containers:	
ON-SIT	E SAMPLE TREAT	MENT: Method Method Method dded:	Containers:Containers:Containers:	
ON-SIT	E SAMPLE TREAT	MENT: Method Method Method dded: Method	Containers:Containers:Containers:Containers:	
ON-SIT	E SAMPLE TREAT	MENT: Method Method Method dded: Method Method	Containers: Containers: Containers: Containers:	
ON-SIT	E SAMPLE TREAT	MENT: Method Method Method dded: Method Method Method Method	Containers:Containers:Containers:Containers:	
ON-SIT	Filtration: Preservatives a	MENT: Method Method dded: Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	E SAMPLE TREAT	MENT: Method Method dded: Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	Filtration: Preservatives a	MENT: Method Method dded: Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	Filtration: Preservatives a	MENT: Method Method dded: Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	Filtration: Preservatives a AINER HANDLING: [] Containe [] Containe	MENT: Method Method dded: Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	Filtration: Preservatives a AINER HANDLING: [] Containe [] Containe [] Containe	Method Method Method Method Method Method Method Method Method Method Method Labeled er Lids Taped	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SIT	Filtration: Preservatives a AINER HANDLING: [] Containe [] Containe	Method Method Method Method Method Method Method Method Method Method Method Labeled er Lids Taped	Containers: Containers: Containers: Containers: Containers: Containers:	

SAMPLING LOCATION <u>MacDill AFB Site OT-24</u> SAMPLING DATE(S) <u>March 1995</u>

GROUND W	ATER SAMPLING RECORD - MONITORING WELL 24 MP - 95	
		(number)
DATE AND SAMPLE CO	OR SAMPLING: [X] Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/15, 1995 /4 25 a.m./pm OLLECTED BY: MD/KC/D of ES Newson Partly Sunny, 75° 7	
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
MONITORIN	NG WELL CONDITION:	
	[] LOCKED: \$\frac{1}{2}\tunlocked	
	WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: Ne w	
	INNER PVC CASING CONDITION IS: New	
	WATER DEPTH MEASUREML T DATUM (IS - IS NOT) APPARENT DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR MONITORING WELL REQUIRED REPAIR (describe):	Survey 48
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Ace Items Cleaned (List): All Equipment used in sampling	
		DELOWDATUM
2 [x]	PRODUCT DEPTHF7 Measured with: Oil/ Water Interface Probe	. BELOW DATOM
	WATER DEPTH	DELOWDATIM
	Measured with: Water Level Probe	. BELOW DATOM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
· ()	Appearance:	
	Odor:	
	Other Comments:	
4 [x]	WELL EVACUATION:	
	Method:	
	Volume Removed: 2000 ml. Observations: Water (slightly - very) cloudy	Clear
	Water level (rose - fell - no change)	- · - · · ·
	Water level (rose - fell - no change) Water odors: Moderate H.C.	Nor
	Other comments:	

Ground Wate	r Sampling R	ecord - Monitorin	g Well No. <u>24-</u> 1	mp.95 ((Cont'd)	
5 [x]	SAMPLE E	XTRACTION MI	ETHOD:			
		[x] Pump, type [] Other, desc	: Peristaltic Pump		TE SAMPLE	we discourse a discourse on the same
6 [x]	ON-SITE M	Temp: 2 / . 5 pH: 2 / . Conductivity: 2 Dissolved Oxyg Redox Potential: Salinity: Nitrate: Sulfate: Ferrous Iron: Other:	5 ° C 0.98 66×10 H ⁵ /s en: 0.05 mg/e	Measured w Measured w Measured w Measured w Measured w Measured w Measured w Measured w	with: Orion Instrument with: vith: vith: Orion Instrument vith: vith: vith: vith: vith:	
7[]	SAMPLE C	1 <u>1-125 m</u> 2-40 m	emprese	rud A	and unpreserved	
8[]	ON-SITE SA	AMPLE TREATN	MENT:			
	[]	Filtration:	Method		Containers:Containers:Containers:	·
	[]	Preservatives ad	ded:			
			Method Method		Containers:Containers:Containers:Containers:Containers:	
9[]	CONTAINE	ER HANDLING:				
		[] Container	Sides Labeled Lids Taped s Placed in Ice Chest			
10[]	OTHER CO Sauge Condi	TYTIVILLI TO.	of in Ic e stab.//2ea they we fore	7	rol calibration of the state of	when when

GROUND W	ATER SAMPLING RECORD - MONITORING WELL 24 MP - 10 D
REASON FO DATE AND SAMPLE CO WEATHER:	(number) OR SAMPLING: P Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3//5 , 19 95 ///D (D)/p.m. OLLECTED BY: MV/KC/JF of ES Dewee PRETLY CIPUNY Alight wind, ~ 70 F R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing
MONITORI	NG WELL CONDITION:
	[] LOCKED: MULOCKED
	WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: Excellent (New)
	INNER PVC CASING CONDITION IS: NEW
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR
	[] MONITORING WELL REQUIRED REPAIR (describe):
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Acetone Items Cleaned (List): All Equipment used in sampling
2 [x]	PRODUCT DEPTH FT. BELOW DATUM Measured with: Oil/ Water Interface Probe
	WATER DEPTH <u>not measured</u> FT. BELOW DATUM Measured with: Water Level Probe !
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: Other Comments:
4 [x]	WELL EVACUATION: Method: Part State Comp Volume Removed: 1500 mL Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: no change Other comments:

m:\fo. \quad

	[x] Pump, type: Peristaltic Pu	ump
	Sample obtained is [x] GRA	B; [] COMPOSITE SAMPLE
ON-SITE	MEASUREMENTS:	
	Temp: 238 ° C	Measured with: Orion Instrument
	pH: 7,29	Measured with:
	Conductivity: 951945/c., Dissolved Oxygen: 6.26	Measured with:
	Redox Potential:	Measured with: Orion Instrument
	Salinity:	Measured with: Measured with:
	Nitrate:	Measured with:
	Sulfate:	Measured with:
	Ferrous Iron:	Measured with:
	Other:	
	1-125 ml imp	reserved Axions
	1-125 ml imp 2-40 ml proces 3-40ml proces E SAMPLE TREATMENT:	r, size): 1-\$250 ml compreserved Alkali neserved Anions served RTEX need TVH
	E SAMPLE TREATMENT: Filtration: Method	Containers:
ON-SITE	E SAMPLE TREATMENT: Filtration: Method Method	Containers:Containers:
ON-SITE	E SAMPLE TREATMENT: Filtration: Method Method	Containers:
ON-SITE	E SAMPLE TREATMENT: Filtration: Method Method	Containers:Containers:
ON-SITE	Filtration: Method Method Method Preservatives added:	Containers: Containers: Containers:
ON-SITE	Filtration: Method Method Method Preservatives added: Method	Containers: Containers: Containers: Containers:
ON-SITE	Filtration: Method Method Preservatives added: Method Method Method	Containers: Containers: Containers: Containers: Containers:
ON-SITE	Filtration: Method Method Preservatives added: Method Method Method Method Method	Containers: Containers: Containers: Containers:
ON-SITE	Filtration: Method Method Preservatives added: Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	Filtration: Method Method Preservatives added: Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:
ON-SITE	Filtration: Method Method Method Preservatives added: Method Method Method Method Method Method In the container Sides Labeled [] Container Lids Taped	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:

Ground Water Sampling Record - Monitoring Well No. 24/100-100 (Cont'd)

GROUND W	ATER SAMPLING RECORD - MONITORING WELL 3 4 nip - 10	_െ ഗ
		(number)
REASON FO	OR SAMPLING: [1] Regular Sampling; [1] Special Sampling;	
DATE AND	TIME OF SAMPLING: 3/2 , 1945 /1.5h arm./p.m.	
SAMPLE CO	OLLECTED BY: MV/KC of ES Delice School Schoo	
DATUM FO	R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
MONITORI	NG WELL CONDITION:	
MOMIONI	[] LOCKED: [L] UNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS:	
	STEEL CASING CONDITION IS: //c ca	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT	
	[] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Charle off		
Check-off	FOLUDATION OF PARED DEPOSE LIGHT MUTTH ALL TO DESCRIPT LIGHT	
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Items Cleaned (List): All Equipment used in sampling	
	Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
2 [^]	Measured with: Oil/ Water Interface Probe	
	With the second	
	WATER DEPTH \(\lambda' \text{N}	FT. BELOW DATUM
	Measured with: Water Level Probe	
	Meddard Man. Water Daver 1000	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
2 [11]	Annearance: / Land Na Berrald	
	Appearance: Crowd B. C. UA Odor: Slight 50/0	
	Other Comments:	
	Other Comments.	
4 [x]	WELL EVACUATION:	
7 [^]	Method: OCI STOCK TIC	
	WELL EVACUATION: Method: Volume Removed: Observations West (1551) and observations	
	Observations: Water (slightly - very) cloudy	
	Water lavel (rose fell - no charge)	
	Water level (rose - fell - no change) Water odors:	1.00
	Other comments:	<u> </u>

SAMI	PLE EXTRACTION I	METHOD:		
	[] Bailer ma	ide of:		
	[x] Pump, typ	pe: Peristaltic Pump		
	[] Other, de	scribe:		
	Comple abtain	adia (w) CDAD: (COMPOSITE SAMPLE	
	Sample obtain	eu is [x] GRAD, [COMPOSITE SAMPLE	
ON-S	ITE MEASUREMEN			
	Temp:	·/ C	Measured with: Orion Instrument	
	рН: <u>Б. і</u>	27	Measured with:	
	Conductivity:	90 40 us/on	Measured with:	
	Dissolved Oxy	/gen: 0,01 male al: 50,12	Measured with: Orion Instrument	
			Measured with:	
	Salinity:		Measured with:	
	Nitrate:	- Add - 10-Tex	Measured with:	
	Sulfate:		Measured with:	
	Ferrous Iron: _		Measured with:	
	Other:			
SAMF	PLE CONTAINERS (I	+	: 2 Vec, I me THA	
	TE SAMPLE TREAT	+		
ON-SI	/ 14 ACI	TMENT:		
	TE SAMPLE TREAT	FMENT: Method	Containers:	
ON-SI	TE SAMPLE TREAT	TMENT: Method Method		
ON-SI	TE SAMPLE TREAT	MENT: Method Method Method	Containers:Containers:	
on-si	TE SAMPLE TREAT	MENT: Method Method Method	Containers:Containers:Containers:	
on-si	TE SAMPLE TREAT	MethodMethoddded: Method	Containers: Containers: Containers: Containers:	
on-si	TE SAMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers:	
on-si	TE SAMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers:	
ON-SI	TE SAMPLE TREAT Filtration: Preservatives a	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SI	TE SAMPLE TREAT	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SI	TE SAMPLE TREAT Filtration: Preservatives a AINER HANDLING [] Containe	Method Method Method Method Method Method Method Method Method Method Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SI	TE SAMPLE TREAT Filtration: Preservatives a Containe Containe Containe	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	
ON-SI	TE SAMPLE TREAT Filtration: Preservatives a Containe Containe Containe	Method Me	Containers: Containers: Containers: Containers: Containers: Containers: Containers: Containers:	

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GROUND V	VATER SAMPLING RECORD - MONITORING WELL	'0 S
REASON FO DATE AND SAMPLE CO WEATHER:	OR SAMPLING: [X] Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 3/15 , 1995 /2:00 a.m./pm OLLECTED BY: MO/KC/JF of ES Devce Party Clouds ~ 70° F OR WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	(number)
MONITORI	NG WELL CONDITION:	
MONTOR	[] LOCKED: [] UNLOCKED WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: ✓ EW	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	FT. BELOW DATUM
	WATER DEPTH 2.37 Measured with: Water Level Probe	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: Other Comments:	
4 [x]	WELL EVACUATION: Method:	

	[x] Pump, ty	pe: Peristaltic Pum	ID.
	Sample obtain	ned is [x] GRAB;	[] COMPOSITE SAMPLE
ON-SIT	E MEASUREMEN	NTS:	
	Temp: 2	2.2 ° C	Measured with: Orion Instrument
		7,57	Measured with:
	Conductivity:	45 40 HAMPH	Measured with:
	Dissolved Ox	ygen: - 22 mg/	Measured with: Orion Instrument
	Salinity:	ial:	Measured with:
	Nitrate:		Measured with:
	Sulfate:		Measured with:
	Ferrous Iron:		Measured with:
	Other:		
	<u> </u>	nd preserv	red TVH
ON-SIT	E SAMPLE TREA	TMENT:	
ON-SIT	E SAMPLE TREA		Containers:
		Method	Containers:
		Method	
		Method Method Method	Containers:
[]	Filtration:	Method Method Method added:	Containers:Containers:
[]	Filtration:	Method Method Method added: Method	Containers:
[]	Filtration:	Method Method added: Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
[]	Filtration:	Method Method added: Method Method Method	Containers: Containers: Containers: Containers:
[]	Filtration:	Method Method added: Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers:
[]	Filtration: Preservatives INER HANDLING Contain Contain	Method Method added: Method Method Method Method Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers:
[]	Filtration: Preservatives INER HANDLING [] Contain [] Contain [] Contain	Method	Containers: Containers: Containers: Containers: Containers: Containers: Containers:

Ground Water Sampling Record - Monitoring Well No. 24P3P 10 5 (Cont'd)

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Page 2 of 2

SAMPLING LOCATION MacDill AFB Site OT-24 SAMPLING DATE(S) March 1995

GROUND W	ATER SAMPLING RECORD - MONITORING WELL $24 \text{ m} P - I$	Č`S
REASON FO DATE AND SAMPLE CO WEATHER:	PR SAMPLING: [4] Regular Sampling; [] Special Sampling; TIME OF SAMPLING: 2-1-3 , 1945	(number)
MONITORIN	WELL CONDITION: [] LOCKED: [] UNLOCKED WELL NUMBER (IS - IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	
	[] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off 1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2O, and Items Cleaned (List): All Equipment used in sampling	
2 [x]	PRODUCT DEPTH N 2 Measured with: Oil Water Interface Probe	FT. BELOW DATUM
	WATER DEPTH 2 4 × / Measured with: Water Level Probe	FT. BELOW DATUM
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: (Include) Brown Control Odor: (No. 1) Control Other Comments:	
4 [x]	WELL EVACUATION: Method: Volume Removed: Observations: Water (slightly - very) cloudy Water level (rose - fell - no change) Water odors: Other comments:	

Ground Wat	er Sampling	Record - Monitor	ring Well No. 24-mp	2-10-6 (Cont'd)
5 [x]	SAMPLE	EXTRACTION !	METHOD:	
		[x] Pump, ty	pe: <u>Peristaltic Pump</u> scribe:	COMPOSITE SAMPLE
6 [x]	ON-SITE	Dissolved Oxy Redox Potenti Salinity: Nitrate: Sulfate: Ferrous Iron:	3° _C_ 53 <u>48.810</u> ~5 lcm ygen: _C.14 mg 1 al: _116.5 in b	Measured with: Orion Instrument Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with:
7[]	SAMPLE	CONTAINERS (material, number, size)	(2) HACH (2) - DOG
8[]	ON-SITE S	SAMPLE TREAT	rment:	
	[]	Filtration:	Method	Containers:Containers:Containers:
	[]	Preservatives a	added:	
			Method	Containers: Containers: Containers: Containers:
9[]	CONTAIN	ER HANDLING	:	
		[] Contain	er Sides Labeled er Lìds Taped ers Placed in Ice Chest	
10[]	OTHER CO	OMMENTS:	Maria and the state of the stat	

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Page 2 of 2

SAMPLING	LOCATION	MacDill AFB Si	te OT-24
SAMPLING	DATE(S) Ma	arch 1995	

GROUND W	ATER SAMPLING RECORD - MO	NITORING WELL	12-11)
			(number)
REASON FO	R SAMPLING: 1 Regular Sampli	ng; [] Special Sampling;	,
DATE AND	TIME OF SAMPLING: 3/24	, 19 95 /115 a.m./p.	gnu
SAMPLE CO	LLECTED BY: MV/KC	of ES Denver	
WEATHER:	Partly (10.	edy F	
DATUM FO	R WATER DEPTH MEASUREMEN	T (Describe): Top of Well Casing	2
MONITORIN	IG WELL CONDITION:	/	
	[] LOCKED:	∮] UNLOCK	ED
	WELL NUMBER (IS - IS NOT) A	PPARENT /	
	STEEL CASING CONDITION IS:		
	INNER PVC CASING CONDITIO		
	WATER DEPTH MEASUREMEN	T DATUM (IS - IS NOT) APPA	RENT
	[] DEFICIENCIES CORRECTED		
	[] MONITORING WELL REQU	IRED REPAIR (describe):	
Check-off			****
1 [x]	EQUIPMENT CLEANED BEFOR		
	Items Cleaned (List):_	All Equipment used in sampling	
2 [x]	PRODUCT DEPTH	<u> </u>	FT. BELOW DATUM
۷ [۸]	Measured with: Oil/ V	Vater Interface Probe	1. 0000
	Medsured Willi. Others	Valve Intellined 1 1000	
	WATER DEPTH	1	FT. BELOW DATUM
	Measured with: Water	Level Probe	
3 [x]	WATER-CONDITION BEFORE V	WELL EVACUATION (Describe):
- ()	Appearance:	loudy light Bron	
	Odor:	none	
	Other Comments:		
4 [x]	WELL EVACUATION:	. 1 - 1 - 1	
• •	Method:	rstaltice mi	
		ter (slightly - very) cloudy	
		ter level (rose - fell - no change)	
	Wa	ter odors:	
	Oth	er comments:	

Ground Wa	iter Sampling	Record - Monitor	ing Well No.	<u>₹ - 1</u> Ĉ (Cont'd)
5 [x]	SAMPLE	EXTRACTION N	метнор:	
		[] Bailer ma	de of:	
		• •		
		Sample obtain	ed is [x] GRAB: []	COMPOSITE SAMPLE
6 [x]	ON-SITE	MEASUREMEN'	TS:	
• •		Temp: 27	2.0° _C	Measured with: Orion Instrument
		pH: (2.	82	Measured with:
		Conductivity:	114 x10 MS/cm	Measured with:
		Dissolved Oxy	gen: 0 , 13 mg/1	Measured with: Orion Instrument
		Redox Potentia	al: -169.0 mV	Measured with:
		Salinity:		Measured with:
		Nitrate:		Measured with:
		Sulfate:		Measured with:
		Ferrous Iron: _		Measured with:
		Other:		
7[]	SAMPLE	CONTAINERS (1 2-13 Ti	material, number, size)	: 1-methane Hack, Amons
8[]	ON-SITE	SAMPLE TREAT	TMENT:	
	[]	Filtration:	Method	Containers:
	. ,			Containers:
				Containers:
	[]	Preservatives a	added:	
			Method	Containers:
				Containers:
			Method	Containers:
			Method	Containers:
9[]	CONTAI	NER HANDLING	:	
		[] Contain	er Sides Labeled er Lids Taped ers Placed in Ice Chest	
10[]	OTHER (COMMENTS:		

SAMPLING LOCATION MacDill AFB Site OT-24 SAMPLING DATE(S) March 1995

GROUND V	VATER SAMPLING RECORD - MONITORING WELL. 24 A	12-15
	OR SAMPLING: LA Regular Sampling; Special Sampling;	(number)
DATE AND	TIME OF SAMPLING: 3/24, 1995 /2:30 7m)
	OLLECTED BY: MV KC of ES Denus	
	Part Ciacity - 80 R WATER DEPTH MEASUREMENT (Describe): Top of Well Casing	
DATOMITO	IN WATER DEPTH MEASUREMENT (Describe). Top of well casing	
MONITORI	NG WELL CONDITION:	
	JUNLOCKED: JUNLOCKED	
	WELL NUMBER (IS - IS NOT) APPARENT	
	STEEL CASING CONDITION IS: New	
	INNER PVC CASING CONDITION IS: NEW	
	WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARES [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR	NI
	[] MONITORING WELL REQUIRED REPAIR (describe):	
	[] MONTOKING WELL REQUIRED RELAIR (describe).	
Check-off		
1 [x]	EQUIPMENT CLEANED BEFORE USE WITH Alconox, Distilled H2	
	Items Cleaned (List): All Equipment used in sampling	
	4	· · · · · · · · · · · · · · · · · · ·
2 [x]	PRODUCT DEPTH N	FT. BELOW DATUM
2 [^]	Measured with: Oil/ Water Interface Probe	1: BEEOW DATEM
	WATER DEPTH	FT. BELOW DATUM
	Measured with: Water Level Probe	
3 [x]	WATER-CONDITION BEFORE WELL EVACUATION (Describe):	
	Appearance: (/car/gellow	
	Odor: Street	
	Other Comments.	
4 [x]	WELL EVACUATION:	
	Method: peristaltic	
	Volume Removed: 2500 ml	
	Observations: Water (slightly - very) cloudy	
	Water level (rose - fell no change)	
	Water odors: sight	
	Other comments:	

Ground Wa	iter Sampling	Record - Monitor	ing Well No. 72	75 (Cont'd)
5 [x]	SAMPLE	EXTRACTION I	METHOD:	
		[x] Pump, ty	pe: Peristaltic Pump	
		Sample obtain	ed is [x] GRAB; []	COMPOSITE SAMPLE
6 [x]	ON-SITE	Dissolved Oxy Redox Potenti Salinity: Nitrate: Sulfate: Ferrous Iron:	7.7° _C 75 _70 × 10 / 45/cm ygen: _0.79 wy/6 iai: _15 4.3	Measured with: Orion Instrument Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with: Measured with:
7[]	SAMPLE	CONTAINERS (material, number, size)	1-mathane, that-, Amore
8[]	ON-SITE	SAMPLE TREA	TMENT:	
	[]	Filtration:	Method	Containers: Containers: Containers:
	[]	Preservatives	added:	
			Method Method	Containers: Containers: Containers: Containers:
9[]	CONTAI	NER HANDLING	j:	
		[] Contair	ner Sides Labeled ner Lids Taped ners Placed in Ice Chest	
10[]	OTHER (COMMENTS:		

י באטטאט	water sampling record - monitoring well 24 P2 - 15	(number)
reason f Date and Samply o	OR SAMPLING: Of Regular Sampling: [] Special Sampling: OTIMB OF SAMPLING: 1-21 1995 1330 a.m.fm. OLLECTED BY: OF OVER CAST, 90° BRYEZT 5-10 mpy	(4-4
weather Datum Po	OR WATER DEPTH MEASUREMENT (Describe): TOC	
MONITOR	ing well condition: () Locked: () Unlocked Well number((((s)- is not) apparent	
	STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS (IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
	EQUIPMENT CLEANED BEFORE USE WITH Items Cleaned (List):	
1 [3]	Items Cleaned (List):	
Check-off 1 [X] 2 [X]	PRODUCT DEPTH VA	FT. BELOW DATUM
1 (2)	PRODUCT DEPTH WA Measured with: WATER DEPTH 2.70	FT. BELOW DATUM

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS
MacDIN Air Force Base, Florida

PARSONS ENDINEERING SCIENCE, INC.

Denver, Colorado

Page 1 of 2

		•	. .	PARSONS ES	
Cround V	V-sar Sarepiles	Record - Monitor	ring Wall No. 24	P2-15 (con	ro)
				٠	
514	Sample	E EXTRACTION I	METHOD:		
		• • • •			
		[] Builer au			
		[] rump, ty	CAPE PROTETO	itte Pump	
		M 00.01, 00			
		Semple obtain	ed is 💢 GRAB;	J COMPOSITES	SAMPLE
2 2 19	AN 617	7	æ.		
653	On-3112	E MEASUREMEN Temp: <u>26.</u>	113: 7 = ^	Massumd with	Y51 55
		pH: 6.83			09200 250A
		Conductivity:		Measured with:	Enecy 752 55
		Dissolved Oxy	VEST 1.25	Measured with:	75= 55
		Redex Potenti	al: <u>16.2 %</u>		Yss 55
		Salinity: Nitrate:		Measured with:	
		Sulfate:		Measured with:	
		Ferrous Iran:	0.2 Pon		CHEMEYS XXX
•		Other:		· · · · · · · · · · · · · · · · · · ·	
7[]	A MONTE	CONTAINERS	magarial aumber ei	re).	
1.63		, contrainer (man with manners to		
			Ma Arra met		
[]3	ON-2115	Sample Trea			
• -			417201124		
• -	[]	Filtration:	Method	Cont	siners:
• -	[]			Cont	
• •	[]		Method	Cont	
• 7		Piltration:	Method Method Method	Cont	ainers:
• 7	[]		Method Method Method	Cont	ainers:
• 7		Piltration:	Method Method Method	Cont	ziners:ziners:
		Piltration:	Method Method Method Method Method Method	Cont	ainers: ainers: tiners:
		Piltration:	Method Method Method Method Method Method Method	Cont Cont Cont Cont Cont Cont	ziners: ziners: ziners: ziners:
		Piltration:	Method Method Method Method Method Method Method	Cont Cont Cont Cont Cont Cont	ainers: ainers: tiners:
	[]	Piltration:	Method Method Method Method Method Method Method Method	Cont Cont Cont Cont Cont Cont	ziners: ziners: ziners: ziners:
	[]	Pilitation: Preservatives :	Method Method Method Method Method Method Method Method	Cont Cont Cont Cont Cont Cont	ziners: ziners: ziners: ziners:
	[]	Pilitation: Preservatives : NER HANDLING	Method	Cont Cont Cont Cont Cont Cont	ziners: ziners: ziners: ziners:
	[]	Piltration: Preservatives of the contains of	Method	Cont Cont Cont Cont Cont Cont	ziners: ziners: ziners: ziners:
	[]	Pilitration: Preservatives : NER HANDLING [A] Contain [k] Contain	Method	Cont Cont Cont Cont Cont Cont	ziners: ziners: ziners: ziners:
9 M	CONTAI	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont	ainers: ainers: ainers: ainers: ainers: ainers:
9 M	CONTAI	Piltration: Preservatives of the contain [A] Contain [K] Contain [K] Contain	Method Me	Cont Cont Cont Cont Cont Cont	ziners: ziners: ziners: ziners: ziners: ziners: ziners: ziners:
9 M	CONTAI	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont	FIGURE 3.8 (Continued)
9 M	CONTAI	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont	FIGURE 3.8 (Continued) GROUND WATER
9 (X)	CONTAI	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont	FIGURE 3.8 (Continued)
9 (X)	CONTAI	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont	FIGURE 3.8 (Continued) GROUND WATER
9 (X)	CONTAI	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont Cont Cont	FIGURE 3.8 (Continued) GROUND WATER SAMPLING RECORD
9 (X)	CONTAI	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont Cont Cont	FIGURE 3.8 (Continued) GROUND WATER
9 (X) 10 [X]	CONTAI OTHER 6 2402	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont Cont Cont	FIGURE 3.8 (Continued) GROUND WATER SAMPLING RECORD Intrinsic Remediation TS (DIR Air Force Base, Florida
10[7] 9 [X]	CONTAI	Piltration: Preservatives: Preservatives: NER HANDLING [A] Contain [X] Contain [X] Contain	Method Me	Cont Cont Cont Cont Cont Cont Cont Cont	FIGURE 3.8 (Continued) GROUND WATER SAMPLING RECORD

ť

	Sampling Location Sampling Date(s)	1-21-95
reason f Date and	WATER SAMPLING RECORD - MONITORING WELL 2492-25 OR SAMPLING: [A] Regular Sampling: [] Special Sampling: OTIME OF SAMPLING: 7-21 1955 1230 a.m.(pim) OLLECTED BY: 06 L Mot Suer Cost 90 8 are 2 5-10 mpg	_
DATUM, PC	OR WATER DEPTH MEASUREMENT (Describs): TOC	
MONITOR	ING WELL CONDITION: [] LOCKED: WELL NUMBER (IS- IS NOT) APPARENT STEEL CASING CONDITION IS:	
	INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS -(S NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off 1 [4]	EQUIPMENT CLEANED BEFORE USE WITH_ Items Cleaned (List):	
2[义]	PRODUCT DEPTH <u>VQ</u> Measured with:	ft. Below datum
	WATER DEPTH 0.35	FT. BELOW DATUM
3 (A)	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Odor: Other Commenu:	
د لاً	WELL EVACUATION: Method: PERESTALTEC PUMP Volume Removed: L. C.O. Observations: Water (Lightly) very) cloudy Water level (rose - fell (no change)) Water odors: DONE Other comments:	

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Intrinsic Remediation TS MecDIX Air Force Base, Florids

PARSONS PARSONS SCIENCE, INC.

Denver, Colorado

Page 1 of 2

417	SAMPLS EXTRACTION METHOD:	
५ ध्य	SAMPES EXTRACTION METHOD:	
	1 Bailer made of	_
	[] Pump, Sypec.	
	W Other, describe PERISTALTEL PUMP	_
	Control of Control of	
	Sample obtained is [4] GRAB; [] COMPOSITE SAMPLE	
6 KA	ON-SITE MEASUREMENTS:	
- • •	Temp: 199 C Measured with: 455 55	_
	oH: 702 Measured with: 08500 250 H	
	Conductivity: 8.12 Measured with: EATELY	-
	Conductivity: 8,12 Measured with: EATELY Dissolved Oxygen: 1,21 Measured with: YSE 55 Redox Potential: 15.9% Measured with: YSE 55	
	Redox Potential: 15.9? Measured with: 45% 55 Satinity: Measured with:	
	Nitrate: Measured with:	
	Sulface: Measured with:	
	Ferrous Iron: 0.3 9011 Measured with: [UENETS KET	no,***
,	Other:	
		-
7[]	SAMPLE CONTAINERS (material, number, size):	
163	SAME CO CONTRACTO (Indicate), indicated stary.	_
		_
[]8	on-site sample treatment:	
	[] Filtration: Method Containers:	
	Mediod Containers:	
	MethodContainers:	_
	[] Preservatives added:	
	Marked Contries	
	Method Containers: Method Containers:	_
	Method Containers:	_
	Method Containers:	
		_
9[4	Container Handling:	
	[X] Container Sides Labeled [4] Container Lids Taped	
	[4] Container Lids Taped [4] Containers Placed in Ice Chest	
•	(V) Chamblers t meet at ter cares	
10 []	OTHER COMMENTS:	
	74 72-25 or 1230	
	24 12 2K 41 1233 BUP	
	GROUND WATER	
	SAMPLING RECORD	
	Intrinsic Remediation TS	
	MaqDili Air Force Base, Flor	198
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	Sampling Location Sampling date(s)	Mac Dry AFB -21-95
CRCUND Y	water sampling record - monitoring well 24 P2 - 315	(pumber)
DATEANT	OR SAMPLING: [4] Regular Sampling: [] Special Sampling: OTIMB OF SAMPLING: 7-21 1975 1460 a.m.fo.m. OLLECTED BY: - 405, 0054 0555 90 895527 5-10 7094	(2.2)
DATUM PO	DR WATER DEPTH MEASUREMENT (Describe): TOC	
MONITOR	ING WELL CONDITION: [] LOCKED: WELL NUMBER (S) IS NOT) APPARENT STEEL CASING CONDITION IS:	
	INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS - IS NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off	EQUIPMENT CLEANED BEFORE USE WITH Items Cleaned (List):	
2[(]	PRODUCT DEPTH VA Measured with:	ft. below datum
	WATER DEPTH O Measured with:	FT. BELOW DATUM
3 [4]	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: \(\frac{1}{2}	
410	WELL EVACUATION: Method: PERISTRITIC PUMP Volume Removed: 3.5 Cal Observations: Water (lightly - very) cloudy	

FIGURE 3.8

GROUND WATER SAMPLING RECORD

m: Yorms gwzemple.doc Page 1 of 2

Intrinsic Remediation TS
MacDIX Air Force Base, Florida

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Denver, Colorado

Water odors: None
Other comments:

5 [-]		ng Record - Manito LE EXTRACTION			-
- ()	Driver				
		[] Bailer ma [] Pump, sy			
		Sample obtain	ned is [.] GRAB:	I I COMPOS	SITE SAMPLE
4 (3	ON SE	-		() 0000	
6[]	014-311	'E MEASURÉMEN Temo:		Measured	with:
		pH:		Measured	l with:
		Conductivity:		Measured	l with:
		Dissolved Ox	ygen:	_ Measured	with:
		Redox Potenti	al:	Measured	with:
		Salinity: Nitrate:		Measured	l with:
		Sulfate:		Measured	with:
		Sulfate: Ferrous Iran:		Messured	l with:
		Other:			
7[]	SAMPL	E CONTAINERS (material, number,	iize):	
8[]	DN-SIT	E SAMPLE TREA	TMENT:		
	[]	Filtration	Method		Containers:
	()	I needon.	Method		Containers:
			Method		Containers:
	(1	Prescryatives	added:		
	•				
			Method		Containers:
			Method		Containers
			Method		Containers:
					Containers.
) [·]	CONTA	.INEX HANDLING	i:		
		• ,	er Sides Labeled		
		[r] Contain	er Lids Taped ers Placed in Ice C	h	
		(*) Contain	ers Flaced III (CE C		
10 (1		COMMENTS			FIGURE 3.8
				1	(Continued)
				1	GROUND WATER
					SAMPLING RECORD
			- 		
				}	
				1	
				l	Intrinsic Remediation TS
	semple.duc				Intrinsic Remediation TS MacDia Air Force Base, Florida

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	SAMPLING LOCATION	Machen AFB
	SAMPLING DATE(S)	-41-12
GROUND	WATER SAMPLING RECORD - MONTTORING WELL 24 PZ -3	5
REASON I	POR SAMPLING: [A] Regular Sampling: [] Special Sampling: D TIMB OF SAMPLING: 7-21 1995 0915 am/6.m. COLLECTED BY:	(number)
DATUM P	OR WATER DEPTH MEASUREMENT (Describe): TOC	
MONITOR	UNG WELL CONDITION: () LOCKED: WELL NUMBER (5) IS NOT) APPARENT	
	STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS -(S NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off 1 [A]	EQUIPMENT CLEANED BEFORE USE WITH Items Cleaned (List):	
2[3]	PRODUCT DEPTH <u>NA</u> Measured with:	FT. BELOW DATUM
	WATER DEPTH O Measured with:	FT. BELOW DATUM
3 (4)	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: Dalk & Could Odor: Dalk Other Comments:	
412	WELL EVACUATION: Method: PEQESTALIZE PURP Volume Removed: 5 30 Observations: Water (lightl) - very) cloudy Water level (rose - fell -no change) Wulter odors: 500 E Other comments:	

FIGURE 3.8

GROUND WATER SAMPLING RECORD

nt:Vorme/gws.emple.doc Page 1 of 2

Intrinsic Remediation TS
MacDia Air Force Base, Fiorida



PARSONS ENGINEERING SCIENCE, INC.

Denver, Colorado

6/1995		407-671-4199		PARSONS ES	PAGE
Cround W	/elix Semplin	g Record - Manitor	ing Well No. 21P	7-35 (Conta)	
450		G BYTTA A GTT GOLLA	/CTION		
5[0	SAMPL	B EXTRACTION N	METROD:		
		[] Bailer ma			
		[] Pump, syr	CIDE PERTSTALT	TO PUMP	
		Sample obtain	eg is [X] GRAB; []	COMPOSITE SAMPLE	
6 KJ	ON-SITI	E MEASUREMEN		Measured with: 157 55	
		Temp:	<u>c · C </u>	Measured with: O RECU 2500	
		Conductivity:	<u>08.81</u>	Measured with: EXTECH	
		Dissolved Oxy	/20n: 1.51	Measured with: 157 55	
		Redax Potenti	at: 19.5%	Measured with: 751 55	
		Salinity: Nivate:		Measured with:	
	•	Sulfate:		Measured with:	
		Ferrous Iron:	6.7 PPD	Measured with: CHEMETS KIT	
		Other:			
	0.1107				
7[]	SAMPL	b CUNIAINERS (mercrai, number, 1172)):	
8[]	ON-SIT	e sample treat	IMENT:		
	[]	Filtration:	Method	Containers:	
	• •		Method	Containers:	
			Method	Containers:	
	[1	Prescryatives 1	ıdded:		
			Method	Containers:	
			Method	Containers:	
			Method	Containers:	
		•	Method	Containers:	
9[]	CONTA	iner handling	:		
			er Sides Labeled		
	•	(X) Contain		_	
•		(A) Contain	ers Placed in Ice Chest		
10[4	OTHER 24 PZ	COMMENTS:	15	FIGURE 3.8	
		-35 17 07 -35051 ar 09		(Continued)	
		351152 as 09		GROUND WA	
			-	SAMPLING REG	CORD
				Intrincio Remodiati	
	Tample.doc			MacDill Air Force Bar	ee, Piorida
m.\éoras\com	-				
M. Azorma Agran	Page 2 of 2		•	Denver, Color	

	SAMPLING LOCATION SAMPLING DATE(S)	Mae Dru 9FB 1-21-95
CROUND	WATER SAMPLING RECORD - MONITORING WELL 2492-45	
na etac Elemae Elemaev	POR SAMPLING: [4] Regular Sampling: [7] Special Sampling: D TIMB OF SAMPLING: 7-21 1995 1115 (m)/p.m. COLLECTED BY: of R: 4er ouglish 90 895527 5-10 mp4 POR WATER DEPTH MEASUREMENT (Describs): 700	(number)
MONITO	RING WELL CONDITION: [] LOCKED: WELL NUMBER (S) IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS:	
	WATER DEPTH MEASUREMENT DATUM (IS (S NO)) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
Check-off		
1 [4]	EQUIPMENT CLEANED BEFORE USE WITH	
2 KJ	PRODUCT DEPTH WE Measured with:	FT. BELOW DATUM
	WATER DEPTH 0.5 Measured with:	FT. BELOW DATUM
3 KJ	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: \(\subseteq \text{1.5 cm} \text{1.5 cm} \subseteq \text{1.5 cm} \text{2.5 cm}	
4 Ø	WELL EVACUATION: Method: PERTSTAITTE POMP Volume Remarked: 4 Gal Observations: Water (Sightly) very) cloudy Water level (rose - fell - no change) Water odors: Water Other comments:	

FIGURE 3.8

GROUND WATER SAMPLING RECORD

m:Vorme\;wsemple.doc Page 1 of 2

Intrinsic Remediation TS MacDIX Air Force Base, Fiorida

PARSONS ENGINEERING SCIENCE, INC.

Denver, Colorado

	/www.Sempling				
4	Sample	EXTRACTION	METHOD:		
		[] Bailer m			
		[] Pump, ty [A] Other, di	DE PERCE	miss. Pour	·
		Sample obtai	ned to [4] GRAB	() COMPO	SITE SAMPLE
A	ON-SITE	MEASUREMEN	กูร:		No we come
		Temp:		Maasure	with: 45x 55 with: 6 gray 250 p
		Conductivity	X 46 ,		with: Extecy
		Dissolved Ox	yean:).		with: TOT 55
		Redax Potent	ial: 16.5 %	Micanura	with: 10x 66
		Salinity:			l with:
		Nitrate:		Measure	
	ŕ	Suitate:	0.248	Measure	with: Cheren Vac
			O.ZME		VIII: CHETTE STE
}	SAMPLE	CONTAINERS			
	ON-SITE	Sample trea	TMENT:		
	[]	Filtration:	Method		Containers:
		-	Method		Containers:
			Method		Containers:
	[]	Preservatives	idded:		
			Method		Containers:
			Method		Containers:
			Method		Containers:
			Method		Containers:
]	CONTAIN	ver handling	i:		
			er Sides Labeled		
		[<] Contain		•	
		(d) Contain	ers Placed in Ice C	.nest 	
k)	OTHER C	OMMENTS:			FIGURE 3.8
		15 27 1115		ł	(Continued)
	5115	12 112		l	GROUND WATER
-				l	SAMPLING RECORD
				I	
				İ	totalogie Bon district To
			,	.	Intrinsic Remediation TS MacOM Air Force Base, Florida
inem/Code	empledos Paga 2 of 2				PARSONS
				كا ا	Denver, Colorado

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	Sampling location Sampling date(s)	Mar Day OFB 7-21-95
CAUOA!	WATER SAMPLING RECORD - MONITORING WELL 24 P2 - 5	
MATE AND	OR SAMPLING: [4] Regular Sampling; [] Special Sampling; DTIMB OP SAMPLING: 1-11 1993 1030 a.m./p.m.	(pumber)
/eather Vatum Po	C MOT QUERCEST TO BREEZY 5-10 MPH OR WATER DEPTH MEASUREMENT (Ducibs): TO!	
MONITOR	ING WELL CONDITION: () LOCKED: (4 UNLOCKED	
	WELL NUMBER (15) IS NOT) APPARENT STEEL CASING CONDITION IS: INNER PVC CASING CONDITION IS: WATER DEPTH MEASUREMENT DATUM (IS -(15 NOT) APPARENT [] DEFICIENCIES CORRECTED BY SAMPLE COLLECTOR [] MONITORING WELL REQUIRED REPAIR (describe):	
iheck-off [x]	EQUIPMENT CLEANED BEFORE USE WITH Items Cleaned (List):	
K	PRODUCT DEPTH_WA Measured with:	FT. BELOW DATUM
	WATER DEPTH 0.95 Measured with:	FT. BÉLOW DATUM
KI	WATER-CONDITION BEFORE WELL EVACUATION (Describe): Appearance: \(\lambda \cdot \cd	
4	WELL EVACUATION: Method: Eq.57 Qure PonP Volume Removed: L Q QL Observations: Water (slightly very) cloudy Water level (rose - fell (no change)) Water odors: Other comments:	

FIGURE 3.8

GROUND WATER SAMPLING RECORD

Page 1 of 2 Intrinsic Remediation TS

MacDIX Air Force Base, Fiorida

PARSONS ENGINEERING SCIENCE, INC.

Denver, Colorado

4: \45021\DRAWNCS\95000021 et 9:30

07/26/1995	09:58	407-671-4199		PARSONS ES	PAGE 23
Orouad Wa	ier Samplin	g Record - Monitori	ne Well No. 249	12-55 (Contd)	
	•	-			
210	SAMPL	B EXTRACTION M	ETHOD:		
		[] Bailer mac	te of:		
		[] Pump, typ	COR PERSONAL	226 Pum	
		Sample obtains	die [4] GRAB; []	COMPOSITE SAMPLE	
6 KJ	ON-SITT	E MEASUREMENT		YET EE	
		Temps <u>30.35</u>		Measured with: 45t 55 Measured with: 0 etc. 2500	
		Conductivity:	11.80	Measured with: ESTECH	
		Dissolved Oxy Redox Potentia	gen: 11.5	Measured with: 45155 Measured with: 45755	
		Salinity:		Measured with:	
	_	Nitrate:		Measured with:	
	-	Suifate:	0.4 PPm	Messured with: CHEMETS KEE	
		Other.			
7[]	SAMPL	e containers (1	namial, number, size):	
•					
8[]	ON-SIT	e sample treat	MENT:		
		Filtration:	Method	- materia a sere	
	[]	Filestion:	Method	Containers:	
			Method	Containers:	
	[]	Preservatives a	dded:		•
			Method	Commission	
			Method	Containers:	
			Method Method	Containers:	
			Method	Containers:	
8[4]	CONTA	iner handling:			
		(x) Containe	r Sides Labeled		
	•	(x) Containe	r Lids Taped		
		Containe	rs Placed in Ice Ches		
10[4	OTHER	COMMENTS:		FIGURE 3.8	
				(Continued)	
				GROUND WATE	ir Neo
				SAMPLING RECO	עאי
			•		
	•		•	Intrinsio Remediation	
MA SOUTH STREET	mpla.doc			MagDill Air Force Base	FIORIGE
_	Page 2 of 2			PARSONS ENGINEERING SCI	ence, inc.
				Denver, Colorad	^

residual = observed - calculated
weighted residual = residual * weight

Weighted Residual Statistics:

Model Residuals:

_	Time	Observed	Calculated	Residual	Weight
	0.2	1.952	1.9152	0.036794	1
	0.23	1.91	1.8782	0.031771	1
	0.27	1.867	1.83	0.036966	1
	0.3	1.817	1.7947	0.022299	1
	0.33	1.774	1.7601	0.013949	1
	0.37	1.732	1.7149	0.017112	1
	0.4	1.69	1.6818	0.0082212	1
	0.43	1.656	1.6493	0.0066916	1
	0.47	1.614	1.607	0.0070124	1
	0.5	1.58	1.576	0.0040388	1
	0.53	1.546	1.5455	0.00046611	1
	0.57	1.513	1.5059	0.0071241	1
	0.6	1.479	1.4768	0.0021983	1
	0.63	1.445	1.4483	-0.0032889	1
	0.67	1.411	1.4111	-0.00012622	1
	0.7	1.377	1.3839	-0.0068814	1
	0.73	1.344	1.3572	-0.013163	1
	0.77	1.318	1.3223	-0.0043381	1
	0.8	1.293	1.2968	-0.0038075	1
	0.83	1.259	1.2718	-0.01277	1
	0.87	1.234	1.2391	-0.0051366	1
	0.9	1.208	1.2152	-0.0072124	1
	0.93	1.183	1.1918	-0.0087501	1
	0.97	1.158	1.1612	-0.0031701	1
	1	1.132	1.1388	-0.0067512	1
	1.03	1.099	1.1168	-0.017765	1
	1.07	1.082	1.0881	-0.0061093	1
	1.1	1.056	1.0671	-0.011101	1
	1.13	1.031	1.0465	-0.015498	1
	1.17	1.014	1.0196	-0.0056454	1
	1.2	0.989	0.99996	-0.010959	1
	1.23	0.963	0.98065	-0.017653	1
	1.27	0.946	0.95549	-0.0094893	1
	1.3	0.921	0.93704	-0.016042	1
	1.33	0.904	0.91895	-0.01495	1
	1.37	0.887	0.89537	-0.0083699	1
	1.4	0.862	0.87808	-0.016083	1
	1.43	0.845	0.86113	-0.01613	1
	1.47	0.828	0.83903	-0.011033	1
	1.5	0.803	0.82283	-0.019834	1
	1.53	0.794	0.80695	-0.012947	1
	1.57	0.777	0.78624	-0.0092413	1
	1.6	0.761	0.77106	-0.010061	1
	1.63	0.744	0.75617	-0.012174	1

					_
1.67	0.727	0.73677	-0.009771	1	Ð
1.7	0.71	0.72255	-0.012546	1	③
1.73	0.693	0.7086	-0.015596	1	×
1.77	0.676	0.69041	-0.014413	1	
1.8	0.659	0.67708	-0.018083	1	
1.83	0.651	0.66401	-0.013011	1	③
1.87	0.642	0.64697	-0.0049725	1	D
1.9	0.625	0.63448	-0.0094813	1	
1.93	0.608	0.62223	-0.014231	1	.40
1.97	0.6	0.60626	-0.006265	1	
2	0.583	0.59456	-0.01156	1	
2.03	0.575	0.58308	-0.0080805	1	
2.07	0.566	0.56812	-0.0021188	1	•
2.1	0.549	0.55715	-0.00815	1	
2.13	0.541	0.54639	-0.005393	1	
2.17	0.524	0.53237	-0.0083727	1	
2.2	0.507	0.52209	-0.015094	1	
2.23	0.499	0.51201	-0.013014	1	_
2.27	0.499	0.49888	0.00012416	1	Ð
2.3	0.482	0.48924	-0.007244	1	
2.33	0.465	0.4798	-0.014798	1	
2.37	0.456	0.46749	-0.011487	1	
2.4	0.448	0.45846	-0.010461	1	
2.43	0.448	0.44961	-0.0016091	1	
2.47	0.431	0.43807	-0.0070723	1	•
2.5	0.431	0.42961	0.0013856	1	
2.53	0.406	0.42132	-0.01532	1	
2.57	0.406	0.41051	-0.0045088	1	
2.6	0.397	0.40258	-0.005583	1	
2.63	0.389	0.39481	-0.0058103 -0.0046796	1 1	
2.67	0.38 0.38	0.39468 0.37725	0.0027475	1	
2.7 2.73	0.363	0.36997	-0.0069688	1	
2.77	0.363	0.36048	0.0005030	i	
2.8	0.347	0.35352	-0.0065158	i	
2.83	0.347	0.34669	0.00030962	ī	
2.87	0.338	0.33779	0.00020559	î	Ð
2.9	0.33	0.33127	-0.0012726	ī	•
2.93	0.321	0.32488	-0.0038766	ī	
2.97	0.321	0.31654	0.0044596	ī	
3	0.313	0.31043	0.0025711	1	
3.03	0.304	0.30444	-0.00043538	1	
3.07	0.304	0.29662	0.0073763	1	Ð
3.1	0.296	0.2909	0.0051033	1	
3.13	0.287	0.28528	0.0017197	1	
3.17	0.279	0.27796	0.0010399	1	
3.2	0.279	0.27259	0.0064065	1	
3.23	0.27	0.26733	0.0026695	1	_
3.27	0.262	0.26047	0.0015292	1	•
3.3	0.262	0.25544	0.0065581	1	
3.33	0.254	0.25051	0.00349	1	
3.37	0.254	0.24408	0.009918	1	
3.4	0.245	0.23937	0.0056305	1	
3.43	0.245	0.23475	0.010252	1	•
3.47	0.237	0.22872	0.0082756	1	•
3.5	0.228	0.22431	0.0036917	1	
3.53	0.228	0.21998	0.0080224	1	
3.57	0.22	0.21433	0.005667	1	
3.6	0.211	0.21019	0.00080514	1	
3.63	0.211	0.20614	0.0048634	1	•
					•

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3.67	0.203	0.20085	0.0021528	1	Ð
3.7	0.203	0.19697	0.0060306	i	③
3.73	0.203	0.19317	0.0098335	1	
3.77	0.194	0.18821	0.0057901	1	
3.8	0.194	0.18458	0.0094239	1	③
3.83	0.194	0.18101	0.012988	1	
3.87	0.186	0.17637	0.0096323	1	•
3.9	0.178	0.17296	0.0050374	1	
3.93	0.178	0.16962	0.0083769	1	
3.97	0.169	0.16527	0.0037293	1	
4	0.169	0.16208	0.0069203	1	
4.03	0.169	0.15895	0.01005	1	•
4.07	0.169	0.15487	0.014128	1	•
4.1	0.161	0.15188	0.0091183	1	
4.13	0.161	0.14895	0.012051	1	
4.17 4.2	0.161	0.14513	0.015873	1	
4.23	0.152 0.152	0.14233	0.0096747	1	
4.27	0.152	0.13958 0.136	0.012423 0.016004	1	•
4.3	0.152	0.13337	0.01863	1 1	
4.33	0.144	0.1308	0.013205	1	
4.37	0.135	0.12744	0.013203	î	
4.4	0.135	0.12498	0.010021	1	
4.43	0.135	0.12257	0.012434	1	
4.47	0.135	0.11942	0.015579	ĩ	D
4.5	0.135	0.11711	0.017885	î	
4.53	0.127	0.11485	0.012146	ī	
4.57	0.127	0.11191	0.015093	1	
4.6	0.127	0.10975	0.017254	1	
4.63	0.127	0.10763	0.019373	1	
4.67	0.118	0.10487	0.013135	1	•
4.7	0.118	0.10284	0.015159	1	
4.73	0.118	0.10086	0.017145	1	
4.77	0.11	0.098267	0.011733	1	
4.8	0.11	0.09637	0.01363	1	
4.83	0.11	0.094509	0.015491	1	h
4.87	0.11	0.092084	0.017916	1	•
4.9	0.11	0.090306	0.019694	1	
4.93	0.11	0.088563	0.021437	1	
4.97	0.101	0.08629	0.01471	1	
5 5.03	0.101	0.084624	0.016376	1	
5.07	0.101 0.101	0.082991 0.080861	0.018009	1 1	Ð
5.1	0.093	0.080801	0.020139 0.0137	1	
5.13	0.093	0.077769	0.015231	1	
5.17	0.093	0.075773	0.013231	1	
5.2	0.093	0.07431	0.01869	1	
5.23	0.093	0.072876	0.020124	î	_
5.27	0.085	0.071006	0.013994	ī	•
5.3	0.085	0.069635	0.015365	î	
5.33	0.085	0.06829	0.01671	ī	
5.37	0.085	0.066538	0.018462	ī	
5.4	0.085	0.065253	0.019747	1	
5.43	0.085	0.063993	0.021007	1	.
5.47	0.076	0.062351	0.013649	1	•
5.5	0.076	0.061147	0.014853	1	
5.53	0.076	0.059967	0.016033	1	
5.57	0.076	0.058428	0.017572	1	
5.6	0.076	0.0573	0.0187	1	
5.63	0.076	0.056194	0.019806	1	b
					-

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*

5.67	0.076	0.054752	0.021248	1
5.7	0.068	0.053695	0.014305	1
5.73	0.068	0.052658	0.015342	1
5.77	0.068	0.051307	0.016693	1
5.8	0.068	0.050316	0.017684	1
5.83	0.068	0.049345	0.018655	1
5.87	0.068	0.048079	0.019921	1
5.9	0.068	0.04715	0.02085	1
5.93	0.068	0.04624	0.02176	1
5.97	0.068	0.045054	0.022946	1
6	0.068	0.044184	0.023816	1
6.03	0.059	0.043331	0.015669	1
6.07	0.068	0.042219	0.025781	1
6.1	0.059	0.041404	0.017596	1
6.13	0.059	0.040604	0.018396	1
6.17	0.059	0.039562	0.019438	1
6.2	0.059	0.038799	0.020201	1
6.23	0.059	0.038049	0.020951	1
6.27	0.059	0.037073	0.021927	1
6.3	0.059	0.036357	0.022643	1
6.33	0.059	0.035655	0.023345	1
6.37	0.059	0.03474	0.02426	1
6.4	0.051	0.03407	0.01693	1
6.43	0.051	0.033412	0.017588	1

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

Estimate

4.8114E-003 ft/min 2.1810E+000 ft K = y0 =

Residual standard deviation..... 0.05893 Residual variance...... 0.003473





Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.13	2.121	1.9802	0.14084	1
0.17	1.918	1.8231	0.094857	1
0.2	1.749	1.7136	0.035394	1
0.23	1.597	1.6107	-0.01365	1
0.27	1.47	1.4829	-0.012933	1
0.3	1.352	1.3938	-0.041837	1
0.33	1.251	1.3101	-0.059093	1
0.37	1.158	1.2062	-0.048209	1
0.4	1.073	1.1337	-0.060738	1
0.43	0.997	1.0656	-0.068622	1
0.47	0.921	0.98112	-0.060123	1
0.5	0.862	0.92218	-0.060176	1
0.53	0.803	0.86677	-0.06377	1
0.57	0.752	0.79804	-0.046039	1
0.6	0.702	0.75009	-0.048092	1
0.63	0.659	0.70503	-0.046025	1
0.67	0.617	0.64912	-0.03212	1
0.7	0.583	0.61012	-0.02712	1
0.73	0.549	0.57346	-0.024463	1
0.77	0.516	0.52799	-0.01199	1
0.8	0.482	0.49627	-0.014268	1
0.83	0.457	0.46645	-0.0094515	1
0.87	0.44	0.42946	0.010536	1
0.9	0.414	0.40366	0.010339	1
0.93	0.397	0.37941	0.017591	1
0.97	0.372	0.34932	0.022677	1
1	0.355	0.32834	0.026664	1
1.03	0.338	0.30861	0.029391	1
1.07	0.33	0.28414	0.045863	1
1.1	0.304	0.26707	0.036934	1
1.13	0.296	0.25102	0.04498	1
1.17	0.279	0.23112	0.047884	1
1.2	0.271	0.21723	0.05377	1
1.23	0.271	0.20418	0.066822	1
1.27	0.262	0.18799	0.074012	1
1.3	0.245	0.17669	0.068307	1
1.33	0.245	0.16608	0.078923	1
1.37	0.237	0.15291	0.084092	1
1.4	0.228	0.14372	0.084279	1
1.43	0.22	0.13509	0.084914	1
1.47	0.211	0.12437	0.086625	1
1.5	0.211	0.1169	0.094098	1

								AUTESOLU
NGINEERING SCIENCE	020	MD24-MW10A	DATA SET: 0110AR1.AQT 12/05/95 AQUIFER HODEL: Unconfined	SOLUTION METHOD: Bouwer-Rice	TEST DATA: H0= 3.262 ft rc= 0.98333 ft rw= 0.25 ft L = 5.64	929	八萬""	
COMPANY: PARSONS ENGINEERING SCIENCE	PROJECT: 722450,21050	TEST			1			
		HEAD SLUG					. 4. 5 inc (min)	
	ORCE BASE	RISING					· 2.	
CLIENT: AFCEE	LOCATION: MACDILL AIR FORCE BASE		10. ETTT	<u>Li.l</u>	.1		Displacement (And the second s

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AOTESOLV RESULTS Version 2.01

Developed by Glenn M. Duffield (c) 1988-1995 Geraghty & Miller, Inc.

09:01:33 12/05/95

TEST DESCRIPTION

Data set..... OT10AR1.AQT Output file..... OT10AR1.OUT

Data set title..... RISING HEAD SLUG TEST MD24-MW10A

Company...... PARSONS ENGINEERING SCIENCE Project...... 722450.21050 Client..... AFCEE

Location..... MACDILL AIR FORCE BASE

Test date..... 3-24-95 Test well..... MD24-MW10A

Units of Measurement

Length..... ft Time..... min

Test Well Data

Initial displacement in well.... 3.262 Radius of well casing..... 0.08333 Radius of wellbore..... 0.25 Aguifer saturated thickness..... 26.5 Well screen length..... 5 Static height of water in well... 26.5 Gravel pack porosity..... 0.3 Effective well casing radius.... 0.1537 Effective wellbore radius..... 0.25

Constants A, B and C..... 0.000 , 0.000, 1.661

No. of observations..... 193

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aguifer Slug Test)

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

Estimate Std. Error 4.8114E-003 +/- 1.4655E-005 ft/min 2.1810E+000 +/- 5.2222E-003 ft K =

y0 =

ANALYSIS OF MODEL RESIDUALS

CLIENT: AFCEE	COMPANY: PARSONS ENGINEERING SCIENCE	
LOCATION: MACDILL AIR FORCE BASE	PROJECT: 722450.21050	
RISING HEAD SLL	RISING HEAD SLUG TEST MD24-MW4	
	DATA SET: 0T244R2.AQT 12.05.95	
10.	AQUIFER MODEL: Unconfined SOLUTION METHOD: Bouwer-Rice	
11111111111111111111111111111111111111	TEST DATA: 110= 6.464 ft	
Displacement (H = 17.48 ft PARAMETER ESTIMATES:	
9.01		
0.001 Liliiiiiiiiiiii 2.	· · · · · · · · · · · · · · · · · · ·	
		AQTESOLU

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AQTESOLV RESULTS Version 2.01

Developed by Glenn M. Duffield (c) 1988-1995 Geraghty & Miller, Inc.

12/05/95 10:20:25

TEST DESCRIPTION

Data set..... OT244R2.AQT Output file..... OT244R2.OUT

Data set title.... RISING HEAD SLUG TEST MD24-MW4 Company..... PARSONS ENGINEERING SCIENCE Project..... 722450.21050 Client..... AFCEE

Location..... MACDILL AIR FORCE BASE

Test date..... 3-29-95 Test well..... MD24-MW4

Units of Measurement

Length..... ft Time.... min

Test Well Data

Initial displacement in well.... 6.464 Radius of well casing..... 0.08333 Radius of wellbore..... 0.3333 Aguifer saturated thickness..... 26 Gravel pack porosity..... 0.3 Effective well casing radius.... 0.1954 Effective wellbore radius..... 0.3333 Constants A, B and C...... 2.444 , 0.397, 0.000 No. of observations..... 90

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

Estimate Std. Error

2.2540E-004 ft/min 5.1544E-002 ft 9.8055E-003 +/-

y0 =2.5901E+000 +/-

ANALYSIS OF MODEL RESIDUALS

April 4, 1995

MacDill Air Force Base Site 24 Coodinate Data

Point	Identification	North	East	Elevation
1	NVZR 13	1280120.4750	485499.2540	6.44
2	NVZR 14 AZ MK	1279899.9680	484902.3800	5.69
3	SET H/T	1279773.7806	484807.9739	5.65
4	SET H/T	1279571.8301	484748.0510	6.00
5	SET H/T	1279608.1830	484614.3683	4.18
6	SET H/T	1279900.6182	484596.4411	5.88
7	CK.IN	1279899.9340	484902.4512	5.88
8	CK.IN	1279773.7732	484808.0364	5.84
	0 SET	1280120.4811	485499.2704	6.46
101	0 SET	1279899.9464	484902.3639	5.72
102	0 SET	1279773.7909	484807.9770	5.71
103	0 SET	1279571.8182	484748.0945	6.07
104	0 SET	1279608.1870	484614.3680	4.32
105	0 SET	1279900.6182	484596.4370	6.02
200	MD 24-3	1279875.9536	484638.6314	8.23
201	Ground Shot	1279875.9174	484639.1526	5.15
202	Building.	1279864.5428	484663.1942	6.08
203	Building,	1279864.5502	484733.9619	5.77
204	Building.	1279856.0298	484734.5623	5.86
205	Building.	1279855.8815	484754.7661	5.63
206	MD 24-4	1279878.9429	484743.3868	8.51
207	Ground Shot	1279879.5252	484743.7377	5.62
208	24MP-4S	1279857.9828	484852.3484	5.38
	Ground Shot	1279856.8388	484852.0624	5.42
210	Building.	1279850.1052	484818.3598	5.66
211	Building.	1279850.4123	484806.1610	5.65
212	MD 24-5	1279818.8316	484801.6616	4.89
213	Ground Shot	1279818.5261	484800.2598	5.11
214	Building.1121 W.Corner.	1279818.5587	484754.8929	5.57
215	MD 24-2	1279811.1229	484752.0674	8.03
216	Ground Shot	1279811.6357	484752.4000	5.57
217	OB-1	1279803.8401	484752.1021	4.99
218	Ground Shot	1279801.7997	484751.9364	5.49
219	PW EAST Ground Shot	1279802.8852	484729.5117	5.81
	24MP-15-1D	1279794.7348	484712.3817	5.58
221	Ground Shot	1279796.0309	484713.1116	5.66
222	PW WEST Ground Shot	1279793.5242	484689.6954	5.51
223	24MP-2S-2D	1279782.4939	484683.8101	4.94
224	Ground Shot	1279783.5399	484684.3627	5.25
225	24SS-1 Ground Shot	1279797.3406	484657.7907	5.56

Prepared by: Landmark Engineering & Surveying Corporation

For: PARSONS ENGINEERING SCIENCE, INC.

Sheet 1 of 6

April 4, 1995

MacDill Air Force Base Site 24 Coodinate Data

Point	Identification	North	East	Elevation
226	MD 24-1	1279799.5076	484629.3807	8.88
227	Ground Shot	1279800.0073	484629.6563	5.25
228	24SS-2 Ground Shot	1279733.5106	484661.7299	- 3.43
229	24MP-9S-9D	1279731.6126	484668.8283	3.60
230	Ground Shot	1279730.5784	484669.5368	3.84
231	MD 24-6A	1279743.3054	484718.2382	4.70
232	Ground Shot	1279741.7084	484720.4505	4.92
233	MD 24-6	1279740.4868	484722.5782	4.40
234	24MP-6S	1280097.2143	485064.7488	4.50
235	Ground Shot	1280097.3281	485063.0030	4.60
236	24MP-10S-10D	1279729.8381	484796.1090	4.20
237	Ground Shot	1279728.7192	484795.9779	4.10
238	MD 24-8	1279663.2231	484767.7001	4.36
239	Ground Shot	1279663.2064	484768.7444	4.59
240	24PZ-1D	1279591.4822	484694.8935	5.54
241	Ground Shot	1279591.9355	484694.1700	4.96
242	24PZ-1S	1279592.7636	484693.2163	6.32
243	24MD-10	1279634.0551	484584.9636	3.71
244	Ground Shot	1279637.6726	484585.3720	3.90
245	MD 24-10A	1279641.9951	484585.4691	3.66
246	24MP-3S-3D	1279726.2513	484585.6749	4.00
247	Ground Shot	1279725.6334	484585.7678	4.17
248	MD 24-7	1279708.0375	484626.3789	4.13
249	Ground Shot	1279707.6767	484625.0329	4.10
250	MD 24-9	1279796.2125	484587.7808	4.53
251	Ground Shot	1279795.5025	484587.1212	4.17
252	Building,1121 W.Corner.	1279833.6899	484663.2003	6.01
253	24MP-5S-5D	1279851.2005	484594.7399	5.19
254	Ground Shot	1279851.4422	484595.8417	5.29
. 255	24MP-8S-8D	1279740.8298	484465.8387	4.15
256	Ground Shot	1279739.4371	484465.5132	4.26
257	24MP-7S-7D	1279685.6697	484489.9964	4.00
258	Ground Shot	1279684.0918	484489.0432	4.15

Prepared by: Landmark Engineering & Surveying Corporation

For: PARSONS ENGINEERING SCIENCE, INC.

Sheet 2 of 6



MacDill Air Force Base Additional (August 1995) Data

8/15/95

Point	Identification	North	East	Elevation
4	TP H/T	1279571.8301	484748.0510	6.00
5	TP H/T	1279608.1830	484614.3683	4.18
6	TP H/T	1279900.6182	484596.4411	5.88
243	TP H/T	1279634.0600	484584.9600	6.00
245	TP H/T	1279641.9900	484585.4700	6.00
300	CK.BS.	1279571.8313	484748.0464	6.10
301	24PZ-3D	1279461.2865	484621.4605	3.82
302	24PZ-3D GS.	1279462.2917	484620.6656	3.75
303	24PZ-3S	1279458.8950	484621.4788	3.75
304	24PZ-3S GS.	1279458.8885	484620.4210	3.73
305	24PZ-5S	1279287.8874	484588.3585	4.40
306	24PZ-5S GS.	1279287.5561	484589.7581	4.53
307	24PZ-2S	1279507.4800	484542.4984	4.16
308	24PZ-2S GS.	1279507.3713	484544.1971	4.21
309	24PZ-4S	1279353.5830	484444.3158	4.43
310	24PZ-4S GS.	1279353.5659	484443.1560	4.46

Prepared by: Landmark Engineering Surveying Corporation

For: PARSONS ENGINEERING SCIENCE, INC.

Sheet 1 of 1

APPENDIX C LABORATORY ANALYTICAL DATA

022/722450/203.WW6



Ref: 95-DK16/vg

June 7, 1995

Dr. Don Kampbell

R.S. Kerr Environmental Research Lab U.S. Environmental Protection Agency

P.O. Box 1198

Ada, OK 74820

THRU: S.A. Vandegrift

Dear Don:

This report contains the results of my GC/MSD analysis of one floating product sample (OT-24) from Patrick AFB for quantitation of benzene, toluene, ethylbenzene, p-Xylene, m-Xylene, o-Xylene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, 1,2,4,5-tetramethylbenzene, 1,2,3,5-tetramethylbenzene and 1,2,3,4-tetramethylbenzene performed under Service Request #SF-1-131. I also observed that naphthalene and methylated naphthalene species were abundant in this sample and have provided semiquantitative information for naphthalene, 1methylnaphthalene and 2-methylnaphthalene.

The analytical method was a modification of RSKSOP-124. Cool (38°C) on-column injection (0.5 μ l) was used with electronic pressure control set for a constant flow of 0.9 ml/min. A 30M X 0.25 mm Restek Stabilwax (Crossbonded Carbowax-PEG, 0.5 μ m film) capillary GC column with 9 inch long X 0.53 mm ID uncoated capillary precolumn was used. Quantitation was based on calibration curves (0.05-50 μ g/ml) of selected target ions (1 to 3 ions, total area) for each compound. Semiquantitation of naphthalene compounds was based on area ratios using 50 ug/ml standards. Complete reports detailing the acquisition method and calibration curves have been recorded. The sample was diluted 1/25 with methylene chloride and analyzed by GC/MSD on June 2, 1995.

If I can be of further assistance, please feel free to contact me.

Sincerely

David A. Kovacs

xc: R.L. Cosby

J.L. Seeley // G.B. Smith

ManTech Environmental Research Services Corporation

Analyst: D. A. Kovacs

(8)	

Amount (mg/L)	ene 5.85E+02 1zene 6.98E+02	Ψ.	-	8.45E+02	ne 2.38E+03	ne 1.75E+03	
Compound	1,2,3-Trimethylbenzene	1,2,3,5-tetramethylbenzene	1,2,3,4-tetramethylbenzene	Naphthalene	1-methylnaphthalene	2-methylnaphthalene	
Amount (ma/L)	4.93E+00 ND	2.45E+00	6.10E+00	7.23E+00	4.68E+00	2.43E+02	5.40E+02
Compound	Benzene Toluene	Ethylbenzene	p-Xylene	m-Xylene	o-Xylene	3,5-Trimethylbenzene	2,4-Trimethylbenzene



Ref: 95/JAD21

April 20, 1995

Dr. Don Kampbell

R.S. Kerr Environmental Research Lab U.S. Environmental Protection Agency

P.O. Box 1198

Ada, OK 74820

THRU: S.A. Vandegrift 5

-MacOill data als. included

+ MacDill AFB

Dear Don:

As requested in Service Request # SF-1-123, headspace GC/MS analysis of 90 Patrick AFB water samples for chlorinated VOAs (TCE, PCE, DCE's, and vinyl chloride) was completed. The samples were received on March 28 & April 6, 1995 and analyzed on April 6-11, 1995. RSKSOP-148 (Determination of Volatile Organic Compounds in Water by Automated Headspace Gas Chromatography/Mass Spectrometry (Saturn II Ion Trap Detector) was used for this analysis.

An internal standard calibration method was established for 6 chlorinated compounds. The standard curves were prepared from 1.0 to 5000 ppb. The lower calibration limits were 1.0 ppb.

A dilution corrected quantitation report for the samples, lab duplicates, field duplicates, QC standards and lab blanks is presented in tables 1-4.

If you should have any questions, please feel free to contact me.

Sincerely,

John Allen Daniel

xc: R.L. Cosby

G.B. Smith

D.D. Fine

J.L. Seeley

ManTech Environmental Research Services Corporation

Table 1. Quantitation Report for S.R. # SF-1-123 from Patrick AFB.

Concentration = ppb

Compound	24MP-1D	24MP-1S	24MP-1S	24MP-1S	24MP-2D	24MP-2S	24MP-3D	24MP-3S	24MP-4S	24MP-5D
	Ç	202	Lab Dup	rield Kep	Q	2	2	9	9	QN.
	2 5	? Z	Z	Ş	2	2	2	2	2	QN
THE SOUTH OF THE NEW T	2 5	2 5	2	2	2	2	2	2	Q.	Q.
	; -	, «	16 (4)	82	1	2	1 1	오	오	2
TOTAL SOCIETIENS	: S) ;	2	i C	CN	g	QN QN	9	9	2
TETRACHLOROETHENE	2	=	0.	0,1	2	2	2	2	Q	<u>Q</u>
	24MP-5S	24MP-6S	24MP-7D	24MP-7D	24MP-7S	24MP-8D	24MP-8S	24MP-9D	24MP-9S	24MP-10D
				Lab Dup						!
MNYLCHLORIDE	2	2	2	2	2	2	2	2	2	2
1 1 - DICHLOROETHENE	2	2	욷	2	2	2	2	2	2	2
T-12-DICHLOROETHENE	2	2	오	2	2	2	2	오	2	2
C-12-DICHLOROETHENE	2	Q.	2	Q	2	2	2	7 .8	2	2
TRICHLOROETHENE	2	2	2	9	2	2	2	2	2	9
TETRACHLOROETHENE	Q	Q.	Q	9	Q	<u>Q</u>	Q	Ω	2	2
	24MP - 10D	24MP-10S	24PZ-1D	24PZ-1S	24PZ-1S	MD24-1	MD24-2	MD24-3	MD24-4	MD24-5
u 000000000000000000000000000000000000	C80 C92	Ş	ç	e c	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0] } !	4.6	2	Q	Q N
	2 5	2 2	2	2	Ş	Š	2	Q	2	QN
T. 10 DECEMBER	2 2	2 2	2	2	2	2	2	2	2	S S
O 12 DICH CONCENTENCE	2 5	2 2	1 1	, c	1		4.1	2	8	9
TO THE SOCIETY OF THE SECOND	2 5	2 2	Ş	2	S	CN	2.6	2	Q	S
TETRACHLOROETHENE	22	2 2	2 2	2	2	2	2	2	2	ΩZ
	MD24-6A	MD24~6	MD24-7	MD24-7	MD24-7	MD24-8	MD24-9	MD24-9	MD24-10	MD24-10A
				Fleid Rep	Fleld Dup			Lab Dup	!	(
VINYLCHLORIDE	16.4	1 1 f	1.2	1,5	1.6	2	2	2	Q N	Q Z
1.1-DICHLOROETHENE	Q.	2	2	Q.	Q	Q	2	2	2	2
T-1,2-DICHLOROETHENE	2	2	2	<u>Q</u>	S	Q	2	2	2	2
C-1,2-DICHLOROETHENE	S	i i 1	2	S	S	Q	2	2	[Q Z
TRICHLOROETHENE	Q	Q	2	Q Q	Q	2	2	2	2	S
TETRACHLOROETHENE	Q	2	2	S	2	2	2	2	2	Q Z
	ND = Nor	ND = None Detected	= Belc	= Below Callbration Limit(1.0 ppb)	Limit(1.0 ppt) Dup = Duplicate		Rep = Replicate		





Table 2. Quantitation Report for S.R. # SF-1-123 from Patrick AFB.

Concentration = ppb

Compound	MD24-41	MW32-1	MW32-3	MD32- MW7	56MP-1S	56MP-2S	56MP-30	56MP-3S	56MP-4S 1/5 Dil	56MP-4S Fleid Rep
VINYL CHLORIDE 1,1-DICHLOROETHENE	2 2 2	Q Q Q	9999	0 N N	0 0 0	O O O	222	2 2 2 2 2 2	222	222
C-1,2-DICHLOROETHENE C-1,2-DICHLOROETHENE	2 4	2 2 2	2 2 2	2 2 2	2 2	2 2	25	22	2 Z	2 2
TRICHLOROETHENE TETRACHLOROETHENE	2 2	<u> </u>	2 2	2 2	2 2	2	2	2	2	2
	56MP-5D	56MP-5S	56MP~6D	56MP – 6D Lab Dup	56MP-6S	56MP-7D	56MP-7S	56MP-8S	56MP-10S	56MP-15D
VINYL CHLORIDE	2 2	22	222	22	22	S S	2 2	S S	S S	22
1,1-DICALCAOE I NENE T-1,2-DICALOROETHENE	2	2	2	2	2	2	2	2	2	2
C-1,2-DICHLOROETHENE	2 2	2 5	2 2	<u>9</u>	2 2	22	2 2	2 2	2 2	2 2
TETRACHLOROETHENE	2 2	2	2	S	2	2	Q	9	Q Q	2
			1-2E OW	1-more Jet 195	_					
	MD56- MW1	MD56-	SEMB.	MANA OF THE PROPERTY OF THE PR	56-MW1	MW56-2	MW56-5	MW56-5 Lab Dup	MW56-6	MW56-6 FieldRep
MNYLCHLORIDE	Q	Q	2	2	Q :	2	2	2 5	2 9	2 2
1,1-DIOHLOROETHENE	물 물	2 2	<u> </u>	22	22	2 2	22	2	28	2 2
C-1,2-DICHLOROETHENE	2 5	22	9 9	2 2	22	2 5	25	<u>2</u> 2	2 2	22
TETRACHLOROETHENE	22	2 2	2 2	2 2	2	2	2	2	2	Q
	MW56-7	MW56-8	MW56-9	, MW56–10	MW56-11	MW56-12	75MP-2S	75MP-3D	75MP-4S	75MP-50
E CHLORIDE	Q	S	2	2	2	2	2	2	Q	S
1,1-DICHLOROETHENE	Q	9	2	2	2 5	2 5	29	2 2	2 2	Q Q
T-1,2-DICHLOROETHENE	Q 2	2 2	2 2	2 2	2 5	2 5	2 2	2 2	2 2	2 2
C-1,Z-DICHLON DE INEINE	2 2	2 2	2	2	S	2	2	2	2	Q
THACHLOROETHENE	2	2	2	2	Š	Q	8	ON	S N	Q
ND = None Defected	Jefected		= Below Calibration Limit(1.0 ppb)		Rep = Replicate	B Dup = Duplicate		Dil = Diluton	(•

Table 3. Quantitation Report for S.R. # SF-1-123 from Patrick AFB.

Concentration = ppb

Сотроила	75MP-5D	75MP-6D	75MP-7D	75MP-70	75MP-7S	75MP-80	75MP-8S	75MP - 8S	75MP-9D	75MP-9S
	FieldRep			Lao Dup		!	9	200	2	2
FORCE HOLLING	Q	2	2	2	2	2	2	2	S	<u>2</u> :
	2	S	S	S	2	2	운	2	2	2
יייייייייייייייייייייייייייייייייייייי	2 5	2 5	2	2	2	S	S	S	2	2
T-1,2-DICHLOROEIMENE	2	2	2 !	<u> </u>	2 5	2 2	2	2	2	C
C-12-DICHLOROETHENE	2	2	2	2	2	2	2	2 !	2 !	2 5
THICH OROETHENE	Q	2	오	2	2	2	2	2	2	2
TETRACHLOROETHENE	2	2	₽	9	8	2	2	Q N	Q Z	۵
					-					
		0.00	35011	MAYE	MOZE	MD75_	MD75-	MD75-	MD75-	MD75-
	MU/UN	10/01/2	1000	10.00		2000	2777	11/4/7	NAVA/R	MW
	- MW2	MW3	WW 4	MW4	MW4	CMM	O A A			2
	2			Lab Dup	Field Kep			•	:	2
m Clac HC (NNS)	2	2	욷	2	2	2	9	2	2	2
	2	S	S	S	2	운	ş	S	2	2
	2.2	2 2	2	2	S	S	Q	2	2	2
1-1,2-DICHLOROETHENE	2 2	2 2	2 2	2 5	2	2	S	S	Q	2
C~1,2~DICHLOR OF I HENE	2	2	2 !	2 !	2 5	2 2	2 2	2	2	2
TRICHLOROETHENE	2	2	2	2	2	⊋	2	2	2	2 !
TETRACHLOROETHENE		Q	9	S	9	9	2	2	<u>0</u>	2
	,	25.033	37.074	MAZE	MOZK	MD75_	MD75-	MD75-	MD75-	TripBlank
	1020	MO731	MO73-	NAM.	WW14	WW14	WW14	MW15	MW16	-
	2 2		31 14 15	2		l ab Duo	FieldRep			
	1		2	2	2		Š	2	Ç	S
MNYLCHLORIDE	Q	2	2	2	2	2 !	2 !	2 2	2 5	2
1.1-DICHLOROETHENE	2	2	g	2	Q	욷	9	2	2	2
TI 10 LOUGH OROFTHENE	Q	2	2	2	2	2	2	2	2	2
A PURCH OF DETAILS	2	S	S	2	1,0		1.0	2	2	2
	Ş	S	2	2	N	S	2	Q	2	2
TOTAL OBORTHENE	2	2	2	2	2	2	2	2	2	<u>Q</u>
	<u>}</u>	<u>!</u>	l							
	OCO406A	OC 04068	OC 0406C	CC0406D	QC0406E	QC0406F	QC0406G	QC0406H	QC0408A	QC0408B
•	20 00	200 pop	20 ppp	200 ppp	20 ppp	200 ppp	20 ppp	200 ppp	20 ppp	200 ppp
	200	196	200	198	18.9	197	19.6	189	19.9	195
VINTE CHECKIDE	20.0	2 5	200	7	9 9	90	18.7	196	101	196
1,1-DICHLOROETHENE	20.3	-88	9.5	<u> </u>	t (9 6		1 2		193
T-1,2-DICHLOROETHENE	19.4	185	19.5	180	18.2	186	0.6	/0	10.7	76.0
C-12-DICHLOROETHENE	19.2	196	20.2	196	19.5	187	20.4	198	20.8	102
TRICHLOROFTHENE	21.2	210	22.1	210	19.9	214	21.1	208	21.3	213
TETRACHLOROETHENE	19.9	195	19.0	197	18.8	193	18.8	194	18.2	190
		(0 y/s; -1; -	(Capa Contraction of		otenion C - on C	Ban - Banlinate	ate	
ND = None Detected	1	elow Calibatic	= Below Calibation Limit(1.0 ppb)	ò	- Cuality Control Sto		- Duplicata	1 100		

Table 4. Quantitation Report for S.R. # SF-1-123 from Patrick AFB.

Concentration = ppb

Compound	QC0408C	QC0408D	QC0408E	QC0408F	QC0410A	QC0410B	OC0410C	OC0410D	QC0410E	BL0406A
VINYL CHLORIDE		198	21.0	188	5 5 7 7 7 7	191	19.2	194	20.9	2
1,1-DICHLOROETHENE	18.7	200	19.7	196	19.8	189	19.1	200	20.0	Q
T-1,2-DICHLOROETHENE	19.0	189	19.2	181	18.6	181	19.6	192	19.1	9
C-1,2-DICHLOR OETHENE	19.8	203	19.0	193	19.2	194	19.9	199	19.3	9
TRICHLOROETHENE		214	20.8	506	21.3	203	20.6	212	21.8	오
TETRACHLOROETHENE		196	18.7	186	19.3	187	19.5	198	19.9	S
	BL04068	BL0408A	BL0410A	,						
WNYL CHLORIDE	2	Q	2							
1,1-DICHLOROETHENE	2	2	2							
T-1,2-DICHLOROETHENE	9	8	Q							
C-1,2-DICHLOROETHENE	2	8	2							
TRICHLOROETHENE	2	2	2							
TETRACHLOROETHENE	2	2	2							

QC = Quality Control Std BL = Blank ND = None Detected

*



Ref: 95-JH29/vg

May 9, 1995

Dr. Don Kampbell

R.S. Kerr Environmental Research Lab U.S. Environmental Protection Agency

P.O. Box 1198 Ada, OK 74820

S.A. Vandegrift

Dear Don:

MacDill

Find attached results for methane and ethylene on Patrick AFB samples as per Service Request #SF-1-123. Samples were received on 3/27, 3/28, and 4/6 and analyzed on 3/27, 3/28, 3/30, 4/3, 4/4, 4/7, 4/10, and 4/11/95. Samples were prepared and calculations were done as per RSKSOP-175. Analysis was performed as per RSKSOP-147.

If you have any questions, please feel free to see me.

Sincerely,

Jeff Hickerson

xc: R.L. Cosby J.L. Seeley

G.B. Smith

4

SF-1-123 DATA

ANALYZED 3/27/95		
SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
25	12.846	ND
* FIELD DUP	14.150	ND
3D	2.570	ND
3M	12.437	
		ND
3S	15.534	ND
86-16DD	0.074	ND
9D	9.839	ND
98	5.822	ND
120	0.882	ND
12S	12.339	ND
260	3.756	ND
263	9.009	ND
86-13D	6.116	ND
ANALYZED 3/28/95		
SAMPLE	METHANE	ETHYLENE
J 22		
LAB BLANK	BLO	ND
86-21-MWD	0.749	ND
86MW-10D	1.598	ND
" FIELD DUP	1.560	ND
86MW-18S	3.379	ND
"LAB DUP	3.178	ND
86-18DD	0.068	ND
86-MW4D	5.095	ND
86-MW4S	11.630	ND
" LAB DUP	10.594	ND
		ND
86-21-MWS	9.857	ND
ANALYZED 3/30/95		
SAMPLE	METHANE	ETHYLENF
LAB BLANK	BLQ	ND
24PZ-1S	4.177	ND
24MP-2S	9.887	ND
24MP-3D	0.182	ND
MD32-3	0.137	ND
MD24-4	0.266	ND
* LAB DUP	0.261	ND
MW56-6	6.324	ND
56-MP-6S	0.245	ND
24MP-7S	0.045	ND
56MP-7D	0.067	ND
MW56-8	2.298	ND
24MP-8D	0.068	ND
MD24-9	0.146	ND
24MP-1S	2.501	BLQ

SF-1-123 DATA

ANALYZED 3/30/95		
SAMPLE	METHANE	ETHYLENE
	. 700	ND
24MP-1D	1.788	ND
24MP-2D	0.145	ND
MP24-4	0.288	ND
"LAB DUP	0.271	ND
ANALYZED 4/3/95		
SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
24PZ-1D	0.137	ND
MD56-MW9	0.739	NO
56MP-4S	8.968	ND
56MP-5D	0.568	ND
56MP-5S	13.574	ND
56MP-6D	0.086	МD
56MP-8S	0.032	ND
56MP-10S	2.288	ND
"LAB DUP	2.081	ND
56MP-15D	0.548	ND
MD24-1	0.573	ND
MD24-2	1.311	ND
MD24-3	0.242	ND
MD24-5	0.217	ND
MD24-6	0.610	ND
MD24-6A	2.335	0.001
MD24-7	0.429	ND
ANALYZED 4/4/95		CHIVI ENE
SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
MD24-7 FIELD DUP		ND
MD24-8	0.578	ND
MD24-10	0.249	ND
MD24-10A	0.749	ND
24MP-3S	0.970	ND
24MP-5D	0.075	ND
24MP-5S	0.065	ND
24MP-6S	1.045	ND
24MP-7D	0.033	ND
"LAB DUP	0.032	NO
24MP-8S	0.125	ND
24MP-9D	0.053	ND
24MP-9S	3.270	ND
24MP-10	0.696	ND
24MP-10D	0.060	ND
MW56-1	0.442	ND
MW56-2	0.492	ND

SF-1-123 DATA

ANALYZED 4/4/95		
SAMPLE	METHANE	ETHYLENE
MW56-10	3.711	ND
"LAB DUP	3.513	ND
MW56-12	0.014	ND
ANALYZED 4/7/95		
SAMPLE	METHANE	ETHYLENE
LAD OLANIZ	D: 0	
LAB BLANK 56MW-1	BLQ	ND
MW56-5	0.087 0.136	ND
MW56-7		ND
MW56-11	7.953 5.279	ND ND
56MP-1S	5.279 0.161	ND
56MP-2S	0.161	ND ND
56MP-3D	1.069	ND
56MP-3S	0.092	ND ND
56MP-7D	0.035	ND
MD32-MW7	4.749	ND ND
"LAB DUP	4.74 9 4.545	ND ND
CAB DUP	4.343	ND
ANALYZED 4/10/95		
SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
MD56-MW4	0.034	ND
MW32-1	2.634	ND
MD75-MW2	0.271	ND
MD75-MW3	0.038	ND
MD75-MW4	1.890	BLQ
MD75-MW5	0.035	ND
MD75-MW9	2.245	ND
MD75-MW6	2.466	ND
"LAB DUP	2.351	ND
MD75-MW7	0.641	ND
MD75-MW8	8.962	ND
MD75-MW10	5.394	ND
MD75-MW11	0.986	ND
MD75-MW12	7.310	ND
MD75-MW13	1.227	ND
MD75-MW14	15.439	ND:
MD75-MW15	0.050	ND
MD75-MW16	6.039	ND
75MP-2S	6.550	0.001
"LAB DUP	6.215	ND

SF-1-123 DATA

ANALYZED 4/11/95		
SAMPLE	METHANE	ETHYLENE
LAB BLANK	BLQ	ND
75MP-3D	1.777	ND
FIELD DUP	0.036	ND
75MP-4S	14.469	0.001
75MP-5D	7.361	ND
75MP-6D	8.613	ND
75MP-7D	0.437	ND
75MP-80	0.038	CN
75MP-8S	0.042	ND
"LAB DUP	0.041	ND
75MP-9D	0.072	ND
75MP-9S	0.132	ND
75MP-28S	0.043	ND
/3/VIF-20Q	0.543	,,,,
STANDARDS		
SAMPLE	METHANE	ETHYLENE
10 PPM CH4	9.71	NO
100 PPM CH4	100.03	ND
1000 PPM CH4	1044.51	ND
1% CH4	1.01	ND
10% CH4	9.63	ND
20% CH4	20.18	ND
10 PPM C2H4	ND	9.95
100 PPM C2H4	ND	100.00
1000 PPM C2H4	ND	999.62

LOWER LIMIT OF QUANTITATION

METHANE ETHYLENE

0.001

0.003

UNITS FOR THE SAMPLES ARE mg/L.

UNITS FOR THE STANDARDS CORRESPOND TO THE UNITS IN THE SAMPLE COLUMN.

ND DENOTES NONE DETECTED.
BLQ DENOTES BELOW LIMIT OF QUANTITATION.

I would round off the reported values to two significant digits. Boy Kanglell

Page 4

TOTAL P.06

Evergreen Analytical Sample Log Sheet Project # 95-0861 Date(s) Sampled: 03/15,16/95 COC Date Due: 03/22/95 Date Received: 03/17/95 1000 Holding Time(s): $3/17, 18-N0_2, N0_3, 3/2$ BTEX, TVH, 3/29, 30-A Client Project I.D. 722450,21020/MacDILL AFB Rush STANDARD-UST 2-OTHERS Client: Parsons Engineering Science, Inc. Shipping Charges N/A Address: 1700 Broadway Suite 900 E.A. Cooler # 383 Denver, CO 80290 Airbill # FEDEX 9581826192 Contact: TODD WIEDEMEIER Custody Seal Intact? N/A Cooler ___ Bottles Client P.O. 722450.21020 COC Present Y Sample Tags Present? Y Phone #831-8100 Fax #831-8208 Sample Tags Listed? Y Sample(s) Sealed? Special Invoicing/Billing Special Instructions *PLUS CHLOROBENZENE, TMB & TEMB. ANALYZE AN MS/MSD AND DUPLICATE ON THIS CLIENT'S SAMPLES. Lab Client ID # ID# <u>Analysis</u> Mtx Btl Loc *BTEX 40V X04288A/B 24MP-10D W X04289A/B 24MP-10S *BTEX W 40V X04290A/B MD24-6A *BTEX W 40V 2 X04291A/B MD24-6 *BTEX W 40V 2 X04292A/B 24MP-9D W *BTEX 40V 2 X04293A/B 24MP-9S *BTEX W 40V X04297A/B 24MP-7D 40V *BTEX W W X04298A/B 24MP-75 *BTEX 40V X04299A/B 75MP-1S *BTEX W 40V X04300A/B 75MP-1D *BTEX W 40V 2 X04294A/B FIELD BLANK *BTEX,TVH W 40V 2 W X04296A/B TRIP BLANK *BTEX, TVH 40V 2 X04288C/D 24MP-10D TVH W 40V X04289C/D 24MP-10S TVH W 40V 2 X04290C/D MD24-6A TVH 40V W X04291C/D MD24-6 TVH W 4 O V X04292C/D 24MP-9D TVH W 2 40V R=Sample to be returned Route GC/MS ___ GC 3 Metals Wet Chem 2 Accts _ SxPrep ___ SxRec C QA/QC <u>C</u> Sales <u>C</u> File Oriq Page 1 of 2 Page(s) Custodian/Date: 3,20



CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project #: 95-0861

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 17, 1995, 12 water samples were received in good condition at Evergreen Analytical Laboratory. The chain of custody requested BTEX, TVH, anions and alkalinity analyses be performed on the trip and field blanks, however, due to lack of sample, only the BTEX and TVH analyses could be performed. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Water Matrix, Method 602

Sample MD24-6A was analyzed at a 10x dilution due to the concentration of benzene in the sample. The reporting limit was increased accordingly. There were no quality control anomalies to report.

Total Volatile Hydrocarbon (TVH)
There were no quality control anomalies to report.

Sulfate, Chloride, Nitrite and Nitrate, Water Matrix, Method E300.0 There were no quality control anomalies to report.

Alkalinity, Water Matrix, Method E310.1
There were no quality control anomalies to report.

Patricia A. McClellan, Project Manager

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
1293C/D	24MP-9S	TVH	W	4 0 V	2
X04297C/D	24MP-7D	TVH	W	40V	2
X04298C/D	24MP-7S	TVH	W	40V	2
X04299C/D	75MP-1S	TVH	W	4 O V	2
X04300C/D	75MP-1D	TVH	W	40V	2
X04288E	24MP-10D	ALKALINITY	W	250P	B6
X04289E	24MP-10S	ALKALINITY	W	250P	В6
X04290E	MD24-6A	ALKALINITY	W	250P	B6
X04291E	MD24-6	ALKALINITY	W	250P	B6
X04292E	24MP-9D	ALKALINITY	W	250P	B6
X04293E	24MP-9S	ALKALINITY	W	250P	B6
X04297E	24MP-7D	ALKALINITY	W	250P	B6
X04298E	24MP-7S	ALKALINITY	W	250P	B6
X04299E	75MP-1S	ALKALINITY	W	250P	B6
X04300E	75MP-1D	ALKALINITY	W	250P	B6
X04288F	24MP-10D	C1, SO, NO, NO,	W	250P	B6
X04289F	24MP-10S	Cl , SO4, NO2NO3	W	250P	B6
4290F	MD24-6A	Cl, SO, NO, NO	W	250P	B6
X04291F	MD24-6	Cl-, SO ₄ , NO ₂ NO ₃	W	250P	B6
X04292F	24MP-9D	C1-, SO ₄ , NO ₂ NO ₃	w	250P	B6
X04293F	24MP-95	Cl ⁻ , SO ₄ , NO ₂ NO ₃	W	250P	B6
X04297F	24MP-7D	Cl ⁻ , SO ₄ , NO ₂ NO ₃	W	250P	B6
X04298F	24MP-7S	Cl ⁻ , SO ₄ , NO ₂ NO ₃	W	250P	B6
X04299F	75MP-1S	Cl ⁻ , SO ₄ , NO ₂ NO ₃	W	250P	B6
X04300F	75MP-1D	Cl ⁻ , SO ₄ , NO ₂ NO ₃	W	250P	B6

Page 2 of 2 Pages
Project # 95-0861

R=Sample to be returned

HEADOND / MINALI HOAL SEHVICES REQUEST

Evergreen Analytical Inc.

FAX # 303 831-81 COMPANY PARSONS ENGINEERING SCIENCE Suite 900 ZIP 80290 S. BROADWAY 0 PHONE# 303 831-8100 STATE ADDRESS 1700 CITY DENVER

4036 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 FAX RESULTS(Y)

CLIENT CONTACT (print) 1000 (1100 ME 18 P. EAL. QUOTE # 722 450, 2102 00. PROJECTI.D. Mac Dill AFB

Page Lot 2

TURNAROUND REQUIRED. - 20 plana *expedited turnaround subject to additional fee

Do not write in shaded area EAL use only

ANALYSIS REQUESTED

Sampler Name:

JEFF FETICENHOUR (signatury) Of ct a column (print)

MATRIX

Evergreen Analytical Cooler No. 383 Cooler Received

EAL Project # ()\$6	Custodian	OYOCC OYOCC	200	26	16	62	25	25	tou# #	100000000000000000000000000000000000000	16	Location R-7	12	
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(circle) ATTBE (circle	188 H 981	+					_				<u> </u>	Ŀ		
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0/515 (circle)	C								-		-	2.57		
3/809/0	200 SBO	+							-		-	1960 1960		
	Bos sepicides	1									-			
(circle)	2S3/07S8 AN8	\top									-			
SS4 2 (si	ASS/03S8 AOV												H	
eisieM\dieH\izeq\A	TCLP VOA/BN											2:11		
	egbul2 \ IiO											. i.		
	bilo2 \ lio2													
Discharge(Ground	Water-Dnnking (circle)	×	X	<u>~</u>	×	<u>×</u>	×	DI H.o			×	,		
S16	No. of Containe	9	٩	٥	ه	9	9	`		`	e			
	TIME	1130	1153	1320	1515	1400	1445	1450			0800			
	ation: DATE SAMPLED	3/15/95	3/15/95	3/15/45 1320	3/15/95	3/15/45 1400	3/15/95	315/95			3/16/45			
	mati Sy	H	7	-'	7	3	· W	7			3,			
Cooler Received Please PRINT	all information: CLIENT SAMPLE DA IDENTIFICATION SAMI	24MP-10D	24MP-10S	MD 24 - 6A	MD24-6	24MP-9D	24MP-95	FIELD BLANK	top-9-129W	TRIP BLANK	24MP-7D	STATES STATES	DD;	•

Instructions:

Anings TVH, Alkalin ASAP. BTEY P) + ase Date/Tin field blank Please

clinquished by: (Signature)

prolimi Date/Time [Received by: (Signalure) Someles 100000 rounduater Nature)

> Relinquished by 1100 Al.

Dato/Time Repetited by Legenature)

DateClione





Date/Time 2 107 age 1.1 WEDEMEIER Do not write in shaded area EAL Sample No. EAL use only 18.41.8 98240 300 66 3 Container Size **>** 20 Custodian Project # TURNAROUND REQUIRED* 400 April expedited turnaround subject to additional fee _ocation Date/Timo Received by: (Songme) EAL 1000 PROJECT LD Mac Dill AFD EAL. QUOTE # 712450. 1102 0 CLIENT CONTACT (print)_ הייטבי ווכשר סבוואוכבס מבערבסן 250 | 1254 **ANALYSIS REQUESTED** Total Metals-DW / NPDES / SW8.

Circle & list metals below)

Circle & list metals below) × × FAX RESULTS (Y) (C) G Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 TEPH 8015mod. (Diesel) and ye ASAP Dato/Lime | Relinquished by: (Signature) (Gasso) .bom21 68 HqVD Evergree. __ .nalytical Inc. (cirde) 1.514 esess & 413.1 (cirde) <u>Ş</u> × × BTEX BOZOVGOS (circle) MTBE (circle) FED CX 4036 Youngfield St. <u>₹</u> × PCB Screen Herbicides 8150/515 (circle) Pest/PCBs 8080/608/508 (circle) Please Pesticides 8080/608 (circle) BNA 8270/625 (circle) $\ll \!\!\! \prime$ VOA 8260/624/524.2 (circle) FAX# 303 831-8208 preliminary sisteMvdreHvzeqvaNBvAOV, MATRIX Duto/Time Received by: (Signature) 75 CO 100 **BiloS / lioS** Science Valer-Drinking Discharge (circle) Somoles Suite 900 ZIP 80190 placed in و No. of Containers و و 1440 1530 TIME 0845 ENGINECRING groundunder 3/10/62 DATE SAMPLED 000 BROADWAY 3/16/95 3/16/95 X Get pauline Samples 3/10/95 383 STATE CO Please PRINT FETK ENHOUR all information: PHONE# 303 831 - 8100 Evergreen Analytical Cooler No. 7 Phyquishod by: (Signatura) = COMPANY PAKSONS DENTIFICATION V CITY DENVER SAMPLE 107. thoulan ADDRESS 1700 75MP-10 24MP-75 CLIENT 75 MP- 15 Sampler Name Cooler Received Instructions: (print) JEFF (signature)_ Ö 呈

Evergreen Analytical Sample	e Recei	.pt/	Check-in Re	cord	
Date & Time Rec'd: 3-/7-95 //30	_ Ship	ped	Via: <u>H.D.</u>		
Client: Parsons ES			(Airbill ≠ i	f applica)	ole)
Client Project ID(s): 722450207) 	·			
EAL Project #(s):95- 086/		EAL	Cooler(s):	Y	(N) ■
cooler# <u>client</u>			······································		
Ice packs 😗 N Y N Y	N		Y N	Y N	
Temperature °C Chilled		-			-
			Y	N	N/A
 Custody seal(s) present: Seals on cooler intact Seals on bottle intact 				<u>×</u>	
2. Chain of Custody present:			\leq		•
 Containers broken or leaking: (Comment on COC if Y) 				<u>×</u>	
4. Containers labeled:			<u>×</u>		1
5. COC agrees w/ bottles received: (Comment on COC if N)			<u> </u>		
6. COC agrees w/ labels: (Comment on COC if N)			<u>X</u>		
 Headspace in VOA vials-waters only (comment on COC if Y) 	А				<u>×</u>
8. VOA samples preserved:				-	\times
9. pH measured on metals, cyanide or List discrepancies*Non-EAL provided containers only				7.	
10. Metal samples present:					
Total, Dissolved					
D or PD to be filtered:					
T,TR,D,PD to be Preserved:					
11. Short holding times: Specify parameters					
12. Multi-phase sample(s) present:					
<pre>13. COC signed w/ date/time:</pre>			_<		
Comments:					Manuscrus and
		2			
(Additional comments on back) Custodian Signature/Date:	1/6	~~	~ 3-17	2.95	

CHAIN UF CUSTOUT RECORD / ANALTHICAL SERVICES REGUES!

Evergreen . alytical Inc.

FAX # 303 831-82 08 COMPANY PARSONS ENGINEERING SCIENCE AUDRESS 1700 S. BROADWAY Suite 900 21P 80290 0 STATE PHORIE# 303 831-8100 CITY DENVER

FAX RESULTS (Y) Wheat Ridge, Colorado 80033 FAX (303) 425-6854 (800) 845-7400 4036 Youngfield St. (303) 425-6021

CLIENT CONTACT (print) 1000 WIE DE ME IER TURNAROUND REQUIRED. - 20 - 10mg EAL. QUOTE # 722 45 0. 2102 80.# PROJECTI.D. Mac Dill

e Lot

expedited turnaround subject to additional fee

Do not write in shaded area

Custodian Project #

EAL

EAL use only

ANALYSIS REQUESTED

MATRIX

383 LIEFE FETKELLHOUP (signatury) 17 Ltbe lun Evergreen Analytical Cooler No._ Sampler Name: Cooler Received (brint)_

Please PRINT

all information:

Q EAL Sample No. agruph volume Container Size Location × Total Metals-DW/NPDES/SWB.

(circle & list metals below)

(circle & list metals below)

(circle & list metals below) TEPH 8015mod. (Diesel) (Gassol, bomet (Gasoline) TRPH 418.1/Oil & Grease 413.1 (circle) × × بد × ҳ BTEX 3020/602 (circle)/MTBE (circle) × PCB S^{Creen} Herbicides 8150/515 (circle) PesuPCBs 8080/608/508 (circle) Pesticides 8080/608 (circle) JASS (circle) SB ANB VOA 8260/524/524.2 (circle) SICLP VOA/BNA/PesuHerb/Metals egbul2 \ IiO bilo2 \ fio2 Water-Drinking/Discharge(Ground 129 No. of Containers ڡ e a-0800 1130 1400 3/15/95 1320 1450 1515 3/15/95 1445 1153 3/15/95 3/10/02 3/15/95 3/15/95 3/15/45 SAMPLED 3/15/95 **IDENTIFICATION** FIELD BLANK TRIP BLANK 74MP- 7D 24MP-10D 24MP-10S MD 24 - 6A SAMPLE 14MP-9D 24MP-95 CLIENT MD24-6 4-4-03 Ξ 90

Couly true . July Wark presentes, prin S18965 Anauffected Ar1005 for BTEX, TVH, Alkalinh Date/Time Relinquished by: (Signature) field blank frip blank pasno acrohype Groundwater 5gm0/61 Instructions:

Date/Time Received by: (Signature) FEN CX 15/00/15 7600 Relinquished by: (Signature) M. Tatkenhow

FED CX

Date/Time Reported by: (Sonaturb)

DateJune

الم موا

3-17.8.100

3

CHAIN OF CUSTOUT RECORD! ANALY HUAL SERVICES HEQUES!

, <	\		∞
			FAX # 303 831 - 8208
16 SCIFNE	Suite 900	P 80290	FAX # 303
ENGINEGRIN	BROADWAY	STATE COZ	-8100
COMPANY PARSONS ENGINEERING SCIENCE	NODRESS 1700 S BROADLAY SUITE 900	OITY DENVER STATE CO ZIP 80190	HONE 303 831 - 8100

Evergreen Analytical Inc.

FAX RESULTS (4) (4) 191 4036 Youngileld St.
Wheat Ridge, Colorado 80033
(303) 425-6021
FAX (303) 425-6854
(800) 845-7400

WEDEMEIFR 123 TURNAROUND REQUIRED: ZE dury CLIENT CONTACT (print) 7 0 b b AFD EAL. QUOTE # 712450. 21020 PROJECT I.D. Mac D./II

Page 2 of 2

expedited turnaround subject to additional fee

Do not write in shaded area

EAL use only

ANALYSIS REQUESTED

MATRIX

FETKE SHOUR

(print) JEFF (signature)__

Sampler Name:

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in shaded area EAL Project # Custodian	LAL Sample 10.										Location	Container Size
	 											
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	4											
- ON - ON 12.05 TO	, .											
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circle & list metals - DW / SW846	×	×	۲									
CITCLE & IIST MERSIS DEIOW) CITCLE & IIST MERSIS - DW / SW846 CITCLE & IIST MERSIS - DW / SW846 CITCLE & IIST MERSIS - DW / SW846												
CITCLE STATE OW / NPOES											,	
-, 5000510011	ı											
VPH 3015mod. (Gasoline)	5 ×	×	~									
STEX BOSO/602 (circle)/MTBE (circle)												\neg
STEX BOSO/602 (Circle)/MTRE		×	×									
OS SCIEGO		\^										
91G/DC 10												-
03/809/0808 SBO-4050	_	-										
Pesticides 8080/608 (circle)	-			-		<u> </u>						
Circle)						<u> </u>						
0500/624/524.2 (5:54)												
TCLP VOA/BNA/Pest/Herb/Metals			<u> </u>		<u> </u>		L					
ICLP VOA/BNA/P					ļ				<u> </u>			
egbul2 / liC	,											
bilo2 \ lio	s											
Valer-Drinking/Discharger	, ×	×	×									
to. of Containers	+	و	و									
			٥				_					
	0845	0441	1530									
		1			\vdash	_	-	 	 -			
S. 383 SINT ation: DATE	3/16/45	3/16/45	2/16/95	ł								
383 INT on:		13/	13					ŀ				
No.	ر ار	1 4	~	_	ļ		<u> </u>	ļ				
Evergreen Analytical Cooler No. 383 Cooler Received Please PRINT all information: CLIENT SAMPLE DATE	24 MP - 45	75MP-15	75 MP-10									
vergr wergr	5 5	75	75								Ħ	ä
ယ် ပေ	L	<u> </u>	1	L	L	L	I	L	<u> </u>	<u> </u>		لتا

place All samples Instructions:

ASAP anallyse Please preliminary

iture) Retinquished by

Date/Time Received by: (Signature) YU COUL 21/16/95

nquished by: (Signature)

Date/Tim

Date/Time Received by: (Signature)

Date/Time





BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: MD24-6		MacDill
Lab Sample Number	: X04291	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032118
		Method Blank No.	: MB032195

	Sample				
Compound Name	Cas Number	Concentration	PQL		
		ug/L	ug/L		
Benzene	71-43-2	U	4.0		
Toluene	108-88-3	U	4.0		
Ethyl Benzene	100-41-4	υ	4.0		
Total Xylene	1330-20-7	U	4.0		
Chlorobenzene	108-90-7	υ	4.0		
1,3,5-trimethylbenzene	108-67-8	U	4.0		
1,2,4-trimethylbenzene	95-63-6	U	4.0		
1,2,3-trimethylbenzene	526-73-8	U	4.0		
1,2,3,4-tetramethylbenzene	488-23-3	1.0 J	4.0		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene QC Reporting Limits

90%

: 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

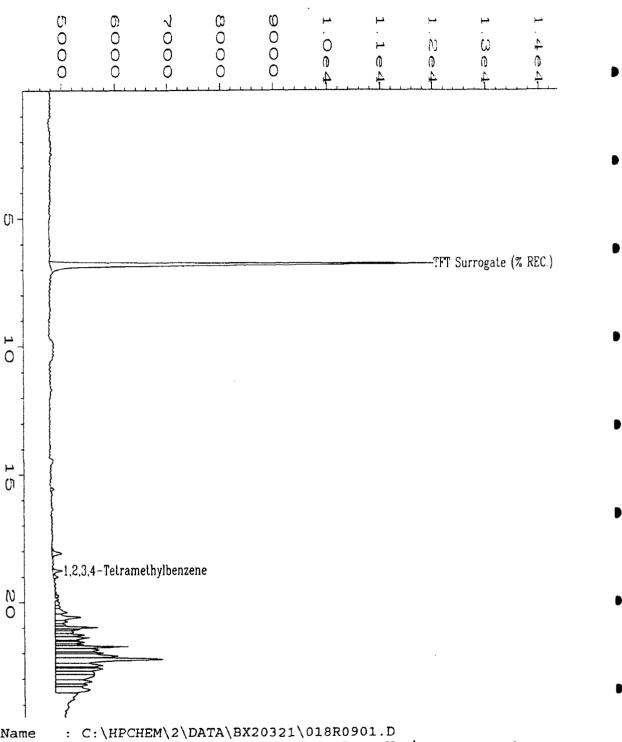
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Annroyed



```
Data File Name
                                                 Page Number
Operator
                 : C.J. Cook
                                                 Vial Number
                                                                   : 18
                   BTEX2
Instrument
                   X04291 DF=1
                                                 Injection Number: 1
Sample Name
                                                 Sequence Line
Run Time Bar Code:
                                                 Instrument Method: BX20321
                 : 21 Mar 95
                              10:59 PM
Acquired on
                                                 Analysis Method : BX20321.MTF
Report Created on: 21 Mar 95
                              11:24 PM
                                                 Sample Amount
                                                                   : 0
                              03:32 PM
Last Recalib on : 21 Mar 95
                                                 ISTD Amount
Multiplier
                 : Project#: 95-0861 Client#: 24MP-6
                                                         Water
Sample Info
```

moay productor

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: MD24-6A		MacDill
Lab Sample Number	: X04290	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032117
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	n PQL ug/L
Benzene	71-43-2	**	* *
Toluene	108-88-3	0.9 J	4.0
Ethyl Benzene	100-41-4	4.9	4.0
Total Xylene	1330-20-7	1.1 J	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	3.2 J	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

** = See BX2032212 for noted values, df = 10, 03/22/95.

Surrogate Recovery:

α,α,α-TrifluorotolueneΩC Reporting Limits99%70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

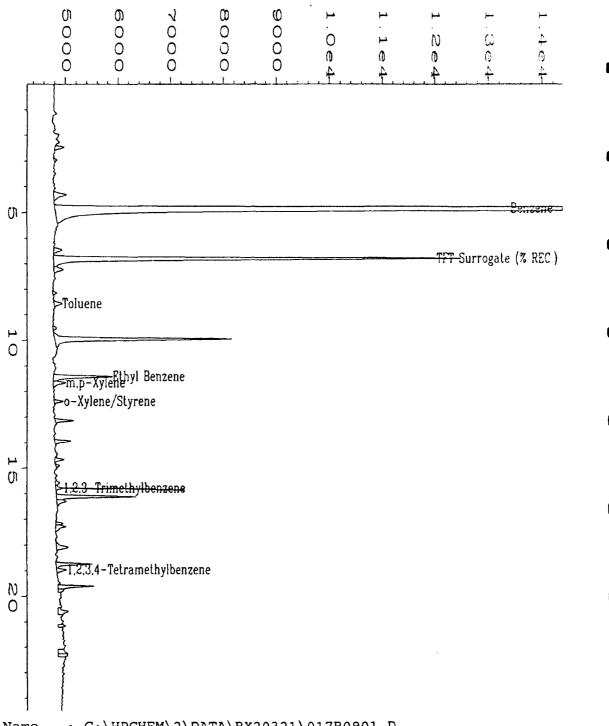
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Annroved



```
Data File Name
                 : C:\HPCHEM\2\DATA\BX20321\017R0901.D
                                                 Page Number
Operator
                 : C.J. Cook
                                                                  : 17
                                                 Vial Number
Instrument
                 : BTEX2
                                                 Injection Number: 1
Sample Name
                 : X04290 DF=1
                                                 Sequence Line
Run Time Bar Code:
                                                 Instrument Method: BX2032
Acquired on
                 : 21 Mar 95
                              10:13 PM
Report Created on: 21 Mar 95
                              10:38 PM
                                                Analysis Method : BX20321.MT.
Last Recalib on : 21 Mar 95
                                                 Sample Amount
                                                                  : 0
                             03:32 PM
Multiplier
                                                 ISTD Amount
Sample Info
                 : Project#: 95-0861 Client#: 24MP-6A
                                               MORY
```

Dm 4/13/95

cm ulalas

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: MD24-6A		MacDill
Lab Sample Number	: X04290	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 10.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/22/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032212
		Method Blank No.	: MB032295

	Sample		
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	170	40
Toluene	108-88-3	**	**
Ethyl Benzene	100-41-4	**	**
Total Xylenė	1330-20-7	**	**
Chlorobenzene	108-90-7	**	**
1,3,5-trimethylbenzene	108-67-8	**	**
1,2,4-trimethylbenzene	95-63-6	**	**
1,2,3-trimethylbenzene	526-73-8	••	**
1,2,3,4-tetramethylbenzene	488-23-3	• •	• •

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

** = See BX2032117 for noted values, df = 1, 03/21/95.

Surrogate Recovery:

 α,α,α -Trifluorotoluene

87%

QC Reporting Limits

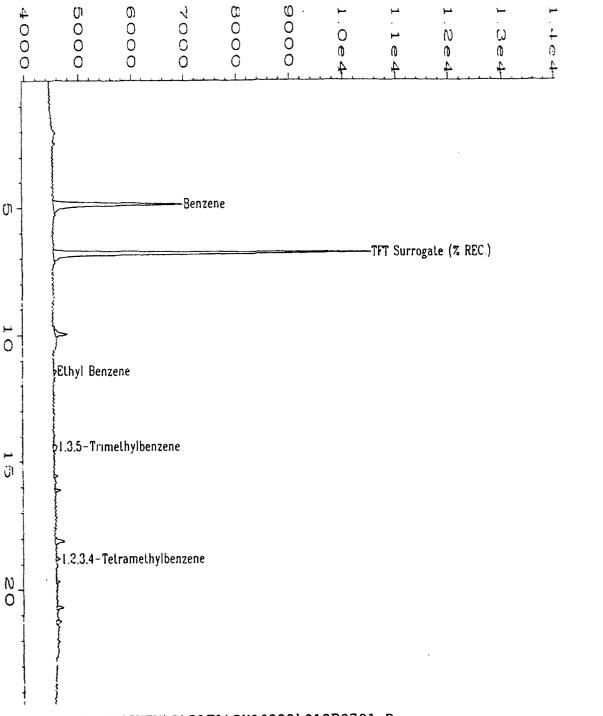
: 70%-130%

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



```
: C:\HPCHEM\2\DATA\BX20322\012R0701.D
Data File Name
                                                                  : 1
                                                 Page Number
Operator
                 : C.J. Cook
                                                                  : 12
                                                 Vial Number
                 : BTEX2
Instrument
                                                 Injection Number: 1
                   X04290 DF=10
Sample Name
                                                                  : 7
                                                 Sequence Line
Run Time Bar Code:
                                                 Instrument Method: BX2032
Acquired on
                 : 22 Mar 95
                              07:26 PM
                                                 Analysis Method
                                                                 : BX2032
                              07:51 PM
Report Created on: 22 Mar 95
                                                 Sample Amount
                                                                  : 0
Last Recalib on . 22 Mar 95
                              04:04 PM
                                                 ISTD Amount
                 : 10
Multiplier
                 : Project#: 95-0861 Client#: MD24-6A
Sample Info
```

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-7S		MacDill
Lab Sample Number	: X04298	Lab Project No.	: 95-0861
Date Sampled	: 3/16/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032126
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	V	4.0
Toluene	108-88-3	3.1 J	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	υ	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	υ	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene : 93%QC Reporting Limits : 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

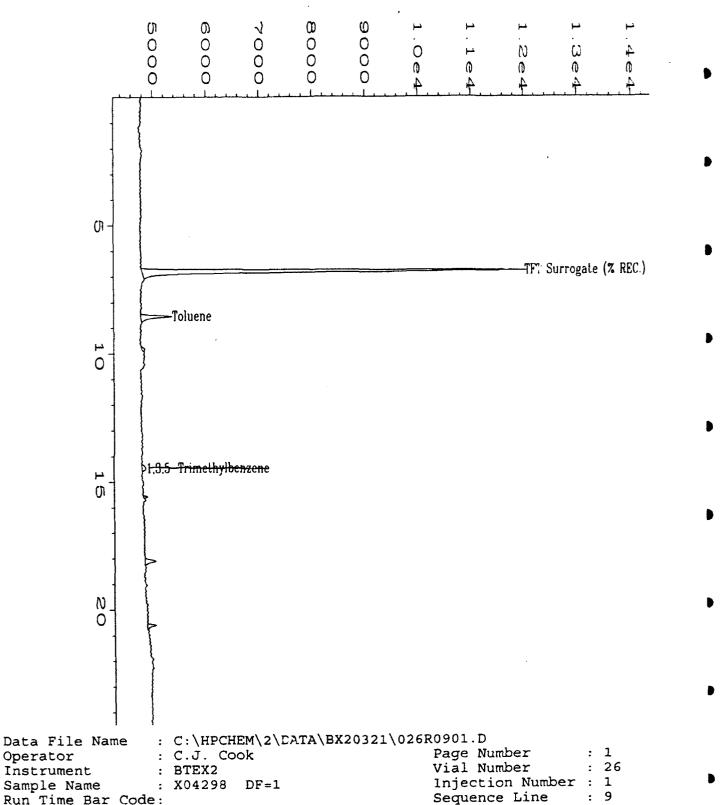
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Inalyst



Run Time Bar Code: 05:10 AM Acquired on : 22 Mar 95 Report Created on: 22 Mar 95 05:35 AM Last Recalib on : 21 Mar 95 03:32 PM Multiplier

: 0 Sample Amount ISTD Amount

Instrument Method: BX20321...T:

Analysis Method : BX20321.MT:

: Project#: 95-0861 Client#: 24MP-7S Water

Sample Info Om wholes

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-7D		MacDill
Lab Sample Number	: X04297	Lab Project No.	: 95-0861
Date Sampled	: 3/16/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032125
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	υ	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	υ	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene : 86%QC Reporting Limits : 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

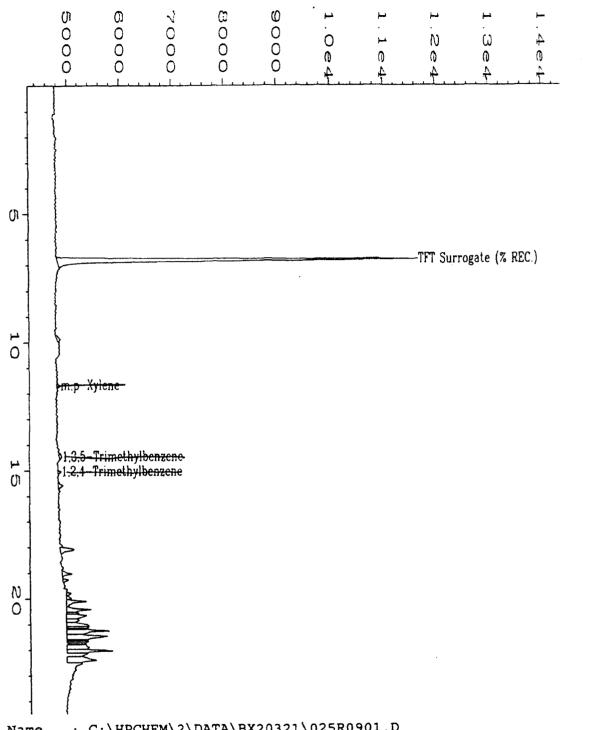
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not ayallable

Ann



```
: C:\HPCHEM\2\DATA\BX20321\025R0901.D
Data File Name
                                                 Page Number
Operator
                 : C.J. Cook
                                                                  : 25
                                                 Vial Number
Instrument
                 : BTEX2
                                                 Injection Number: 1
                 : X04297 DF=1
Sample Name
                                                                  : 9
                                                 Sequence Line
Run Time Bar Code:
                                                 Instrument Method: BX2032.
                 : 22 Mar 95
                              04:24 AM
Acquired on
Report Created on: 22 Mar 95
                                                 Analysis Method : BX20321.MT
                              04:49 AM
Last Recalib on : 21 Mar 95 03:32 PM
                                                                  : 0
                                                 Sample Amount
                                                 ISTD Amount
Multiplier
                 : Project#: 95-0861 Client#: 24MP-7D
                                                          Water
Sample Info
```

Dm 4/13/95

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-9S		MacDill
Lab Sample Number	: X04293	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032124
		Method Blank No.	: M8032195

		Sample	
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	3.0 J	4.0
Toluene	108-88-3	4.5	4.0
Ethyl Benzene	100-41-4	· U	4.0
Total Xylene	1330-20-7	υ	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	υ	4.0
1,2,4-trimethylbenzene	95-63-6	0.4 J	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	16	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene91%QC Reporting Limits70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

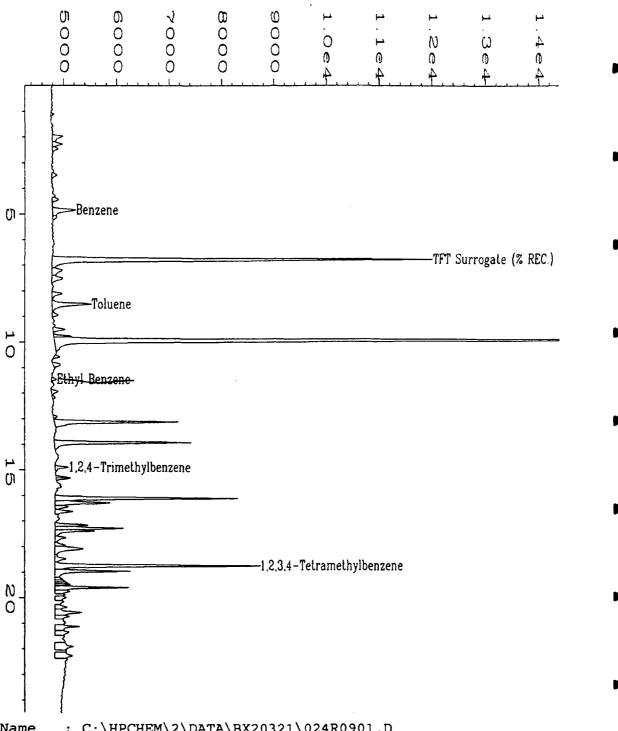
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



Data File Name : C:\HPCHEM\2\DATA\BX20321\024R0901.D Operator : C.J. Cook Page Number : 1 Instrument : BTEX2 Vial Number : X04293 Sample Name DF=1Injection Number : 1 Run Time Bar Code: Sequence Line : 9 Acquired on : 22 Mar 95 03:37 AM Instrument Method: BX20321 .FF Report Created on: 22 Mar 95 : BX20321.MTF 04:02 AM Analysis Method Last Recalib on : 21 Mar 95 03:32 PM Sample Amount ISTD Amount Multiplier Sample Info : Project#: 95-0861 Client#: 24MP-9S

BTEX Data Report

: 722450.21020 Client Project No. Client Sample Number : 24MP-9D/ MacDill : 95-0861 Lab Sample Number : X04292 Lab Project No. **Date Sampled** : 3/15/95 Dilution Factor : 1.00 **Date Received** : 3/17/95 Method : 602 Matrix : Water Date Extracted/Prepared : 3/21/95 Lab File No. : BX2032122 **Date Analyzed** : 3/22/95 Method Blank No. : MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	u	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethy/benzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene QC Reporting Limits 92%

: 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

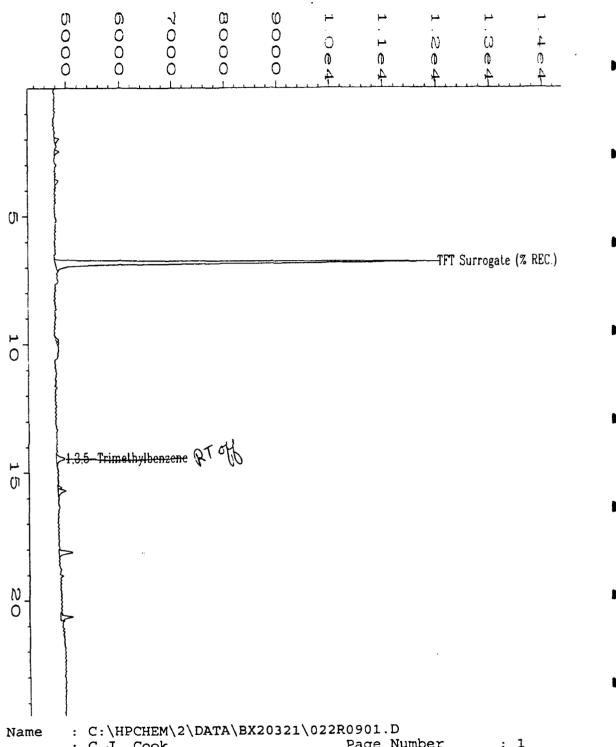
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Indust



(4)

Data File Name Page Number : C.J. Cook Operator Vial Number : BTEX2 Instrument Injection Number: 1 X04292 DF=1 Sample Name Sequence Line Run Time Bar Code: Instrument Method: BX2032_.MI : 22 Mar 95 02:03 AM Acquired on : BX20321.MC Analysis Method Report Created on: 22 Mar 95 02:28 AM Last Recalib on : 21 Mar 95 Sample Amount 03:32 PM ISTD Amount : 1 Multiplier : Project#: 95-0861 Client#: 24MP-9D Water Sample Info

2m 4/0/9x

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-9D		MacDill
Lab Sample Number	: X04292DUP ⁷	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032123
		Method Blank No.	: MB032195

	Sample		
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	υ	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene : 89%QC Reporting Limits : 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

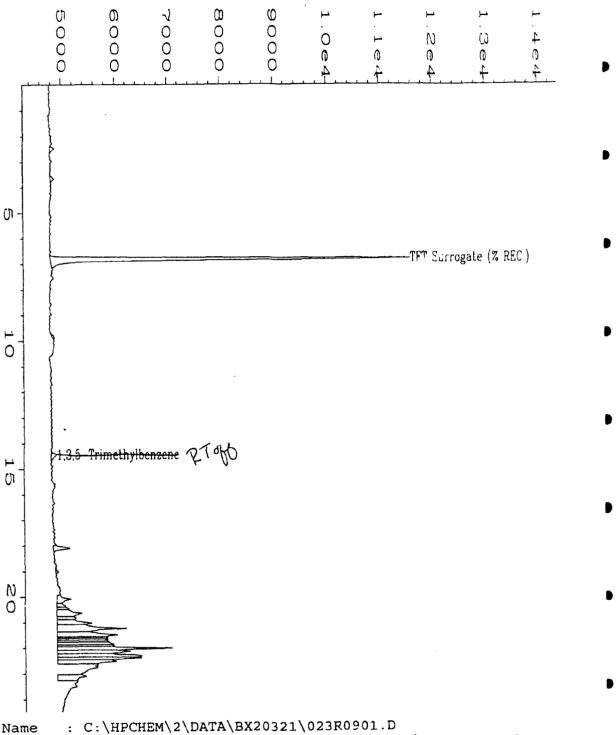
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not available.

Analyst

Annroyad



Data File Name Page Number : C.J. Cook Operator : 23 Vial Number : BTEX2 Instrument Injection Number : 1 DF=1 : X04292DUP Sample Name : 9 Sequence Line Run Time Bar Code: Instrument Method: BX2032 : 22 Mar 95 02:51 AM Acquired on : BX20321.MT Report Created on: 22 Mar 95 Analysis Method 03:16 AM Sample Amount : 0 Last Recalib on : 21 Mar 95 03:32 PM ISTD Amount Multiplier : Project#: 95-0861 Client#: 24MP-9D Water Sample Info

om 4/3/95

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-10S		MacDill
Lab Sample Number	: X04289	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032116
		Method Blank No	· MR032195

	Sample			
Compound Name	Cas Number	Concentration ug/L	PQL	
			ug/L	
Benzene	71-43-2	U	4.0	
Toluene	108-88-3	22	4.0	
Ethyl Benzene	100-41-4	U	4.0	
Total Xylene	1330-20-7	U	4.0	
Chlorobenzene	108-90-7	U	4.0	
1,3,5-trimethylbenzene	108-67-8	U	4.0	
1,2,4-trimethylbenzene	95-63-6	U	4.0	
1,2,3-trimethylbenzene	526-73-8	U	4.0	
1.2,3,4-tetramethylbenzene	488-23-3	U	4.0	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-TrifluorotolueneΩC Reporting Limits: 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

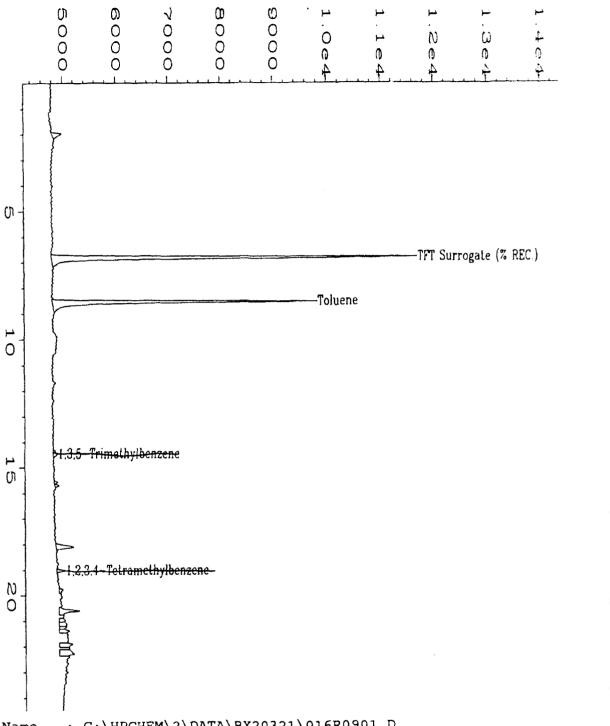
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



```
: C:\HPCHEM\2\DATA\BX20321\016R0901.D
Data File Name
                                               Page Number
                : C.J. Cook
Operator
                                               Vial Number
                 : BTEX2
Instrument
                                               Injection Number: 1
Sample Name
                : X04289 DF=1
Run Time Bar Code:
                                               Sequence Line
                                               Instrument Method: BX2031
                : 21 Mar 95 09:27 PM
Acquired on
                                               Analysis Method : BX2032..MT
Report Created on: 21 Mar 95 09:52 PM
                                               Sample Amount
Last Recalib on : 21 Mar 95 03:32 PM
                                               ISTD Amount
Multiplier
               : Project#: 95-0861 Client#: 24MP-10S
                                                         Water
Sample Info
```

D- 4/8/95

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-10D		MacDill
Lab Sample Number	: X04288	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032114
		Method Blank No.	: MB032195

	Sample			
Compound Name	Cas Number	Concentration	PQL	
		ug/L	ug/L	
Benzene	71-43-2	U	4.0	
Toluene	108-88-3	U	4.0	
Ethyl Benzene	100-41-4	υ	4.0	
Total Xylene	1330-20-7	υ	4.0	
Chlorobenzene	108-90-7	U	4.0	
1,3,5-trimethylbenzene	108-67-8	U	4.0	
1,2,4-trimethylbenzene	95-63-6	U	4.0	
1,2,3-trimethylbenzene	526-73-8	U	4.0	
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene : 97%
QC Reporting Limits : 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

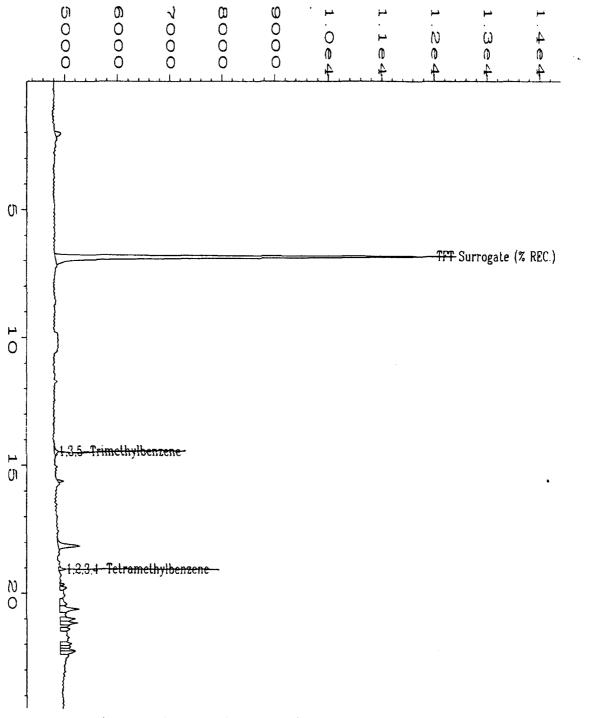
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



```
Data File Name
               : C:\HPCHEM\2\DATA\BX20321\014R0901.D
Operator
                 : C.J. Cook
                                                Page Number
Instrument
                                                Vial Number
                 : BTEX2
                                                                 : 14
                  X04288
Sample Name
                          DF=1
                                                Injection Number: 1
Run Time Bar Code:
                                                Sequence Line
                                                                 : 9
Acquired on
                 : 21 Mar 95 07:54 PM
                                                Instrument Method: BX20321
Report Created on: 21 Mar 95
                              08:19 PM
                                                Analysis Method : BX20321.MTH
Last Recalib on : 21 Mar 95
                             03:32 PM
                                                Sample Amount
Multiplier
                                                ISTD Amount
Sample Info
                 : Project#: 95-0861 Client#: 24MP-10D
```

pm 4/13/95

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-10D		MacDill
Lab Sample Number	: X04288DUP	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/21/95	Lab File No.	: BX2032115
		Method Blank No.	: MB032195

	Sample				
Compound Name	Cas Number	Concentration ug/L	PQL ug/L		
Benzene	71-43-2	U	4.0		
Toluene	108-88-3	U	4.0		
Ethyl Benzene	100-41-4	U	4.0		
Total Xylene	1330-20-7	U	4.0		
Chlorobenzene	108-90-7	U	4.0		
1,3,5-trimethylbenzene	108-67-8	υ	4.0		
1,2,4-trimethylbenzene	95-63-6	U	4.0		
1,2,3-trimethylbenzene	526-73-8	U	4.0		
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene : 94%
QC Reporting Limits : 70%-130%

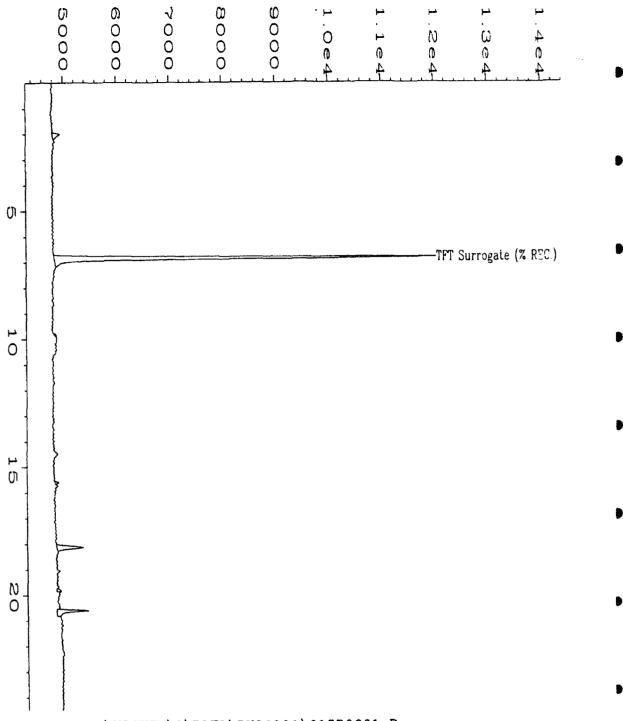
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not available.

Analyst



```
: C:\HPCHEM\2\DATA\BX20321\015R0901.D
Data File Name
                                                Page Number
                 : C.J. Cook
Operator
                                                                  : 15
                                                Vial Number
Instrument
                 : BTEX2
                                                Injection Number: 1
                              DF=1
Sample Name
                 : X04288DUP
                                                                  : 9
                                                Sequence Line
Run Time Bar Code:
                                                Instrument Method: BX2032
                             08:41 PM
                 : 21 Mar 95
Acquired on
                                                Analysis Method : BX20321.MTi
Report Created on: 21 Mar 95
                              09:06 PM
Last Recalib on : 21 Mar 95
                                                Sample Amount
                              03:32 PM
                                                ISTD Amount
Multiplier
                 : Project#: 95-0861 Client#: 24MP-10D
                                                         Water
Sample Info
```

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: 24MP-10D

Client Project No.

: 722450.21020 MACDI

Lab Sample No.

: X04288

Lab Project No. EPA Method No. : 95-0861 : 5030/8015 Mod

Date Sampled

: 3/15/95 : 3/17/95

Matrix

: Water

Date Received
Date Prepared
Date Analyzed

: 3/17/95 : 3/20/95 : 3/20/95

Method Blank

: MB032095

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	5.00	0.00	5.18	104	60-140

Compound	Spike Added	MSD Concentration	мѕ	RPD		IC nits
	(mg/L)	(mg/L)	%REC	_	RPD	%REC
Gasoline	5.00	5.64	113	8.5	50	60-140

* =	Values	outside	of	σc	limits.

RPD:

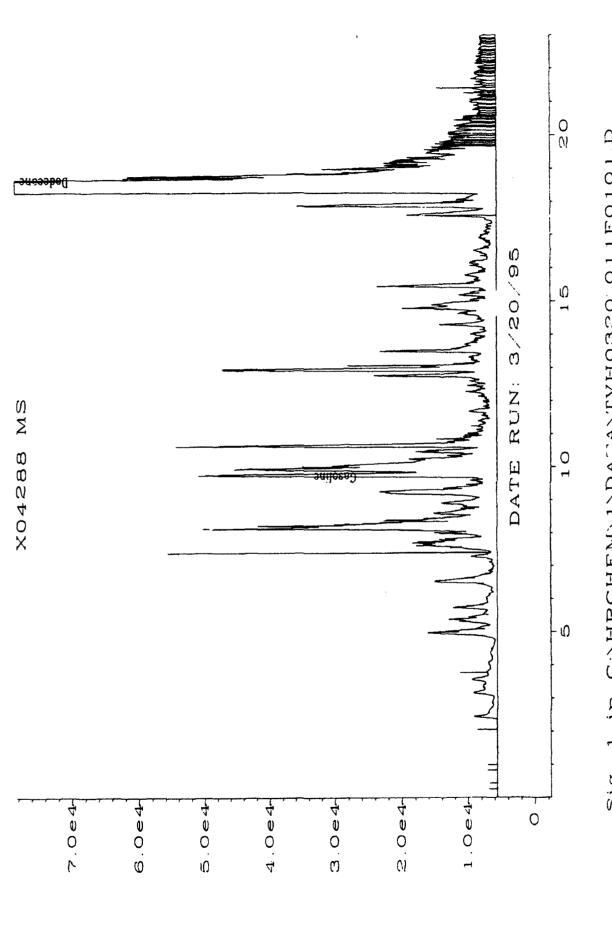
0 out of (1) outside limits.

Spike Recovery:

0 out of (2) outside limits.

Comments:

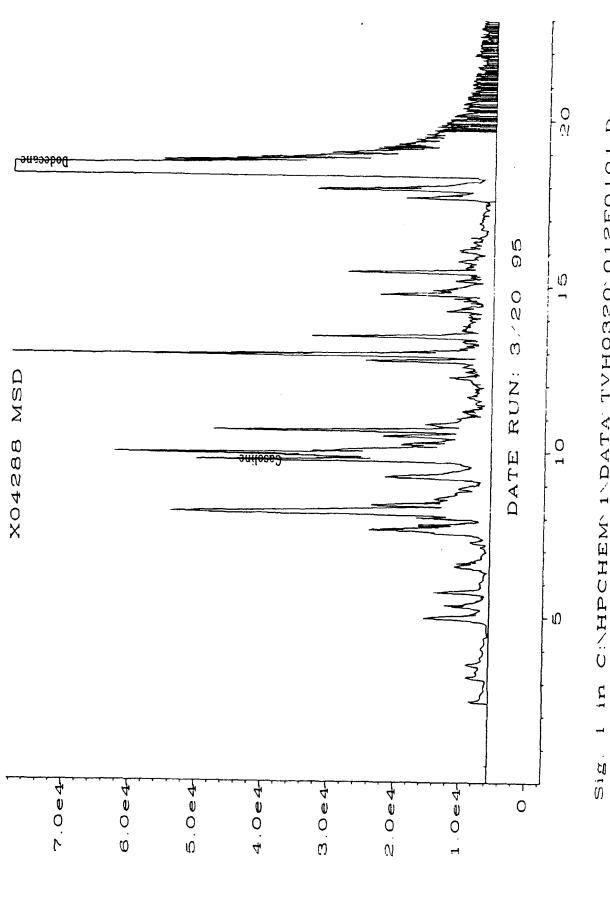
NA = Not analyzed/not applicable.



C:\HPCHEM\1\D&\A\TVHO320\0.11F0101.D in Sig

(1)

③



C:\HPCHEM\1\DATA\TVHO320\012F0101.D

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021



BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

Client Project No.

: 722450.21020

Client Sample No.
Lab Sample No.

: MD24-6 : X04291

Lab Project No. EPA Method No. MacDill : 95-0861

Date Sampled
Date Received

: 3/15/95 : 3/17/95

Matrix

: 602 : Water

Date Prepared Date Analyzed

: 3/21/95: 3/21/95

Lab File Number(s)
Method Blank

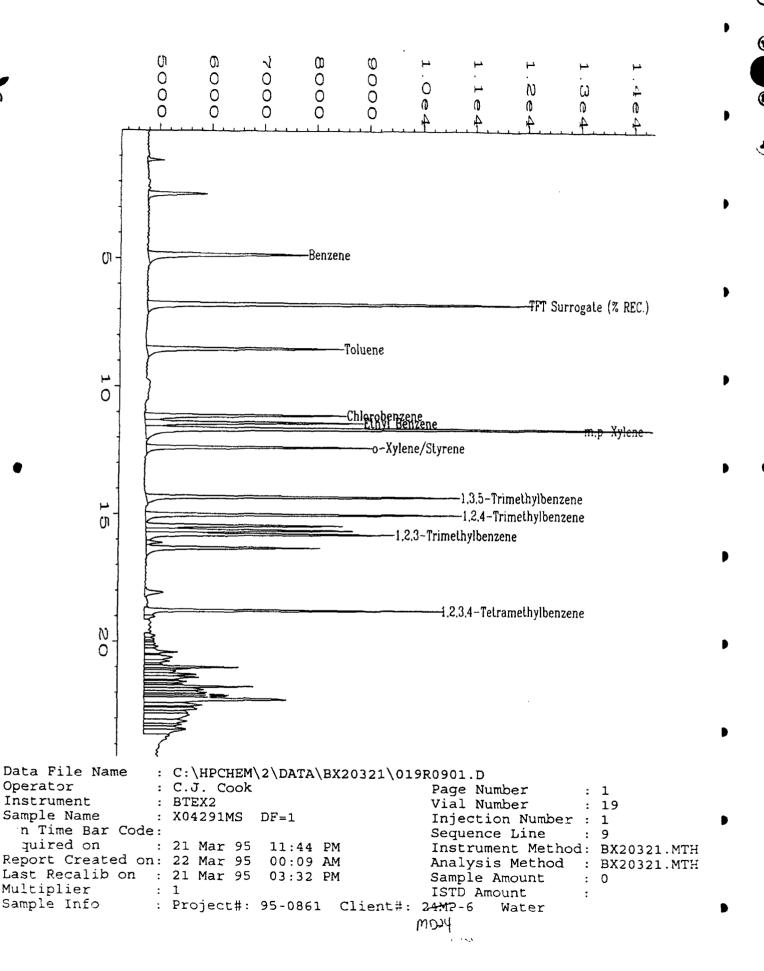
: BX2032119,20

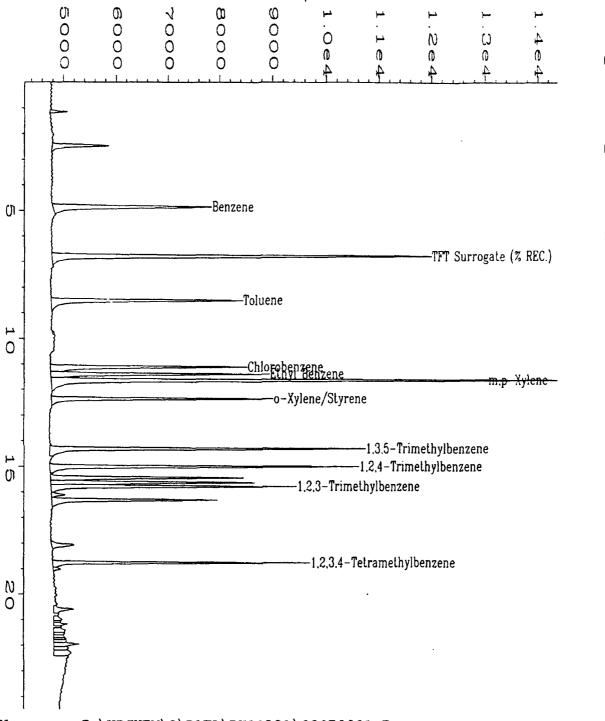
thod Blank : MB032195

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20	0.0	17.1	85.5	65-121
Toluene	20	0.0	17.1	85.5	69-117
Ethyl Benzene	20	0.0	17.5	87.5	68-118
m/p-Xylene	40	0.0	35.1	87.8	66-116
o-Xylene	20	0.0	17.1	85.5	73-117
Chlorobenzene	20	0.0	17.1	85.5	65-11
1,3,5-TMB	20	0.0	16.4	82.0	65-12
1,2,4-TMB	20	0.0	16.5	82.5	65-121
1,2,3-TMB	20	0.0	17.0	85.0	65-121
1,2,3,4-TeMB	20	1.0	18.2	86.0	65-121

Compound	Spike Added	MSD Concentration	MS	RPD	1	ΩC nits
, , , , , , , , , , , , , , , , , , ,	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20	16.6	83.0	3.0	17.4	65-121
Toluene	20	17.3	86.5	1.2	15.8	69-117
Ethyl Benzene	20	17.1	85.5	2.3	11.9	68-118
m/p-Xylene	40	34.4	86.0	2.0	15.4	66-116
o-Xylene	20	16.9	84.5	1.2	13.2	73-117
Chlorobenzene	20	16.9	84.5	1.2	17.4	65-121
1,3,5-TMB	20	16.8	84.0	2.4	17.4	65-121
1,2,4-TMB	20	16.7	83.5	1.2	17.4	65-121
1,2,3-TMB	20	16.2	81.0	4.8	17.4	65-121
1,2,3,4-TeMB	20	16.1	75.5	13.0	17.4	65-121

* = Values outside of QC limits.						
RPD:	0	_out of	(10)	outside limits.		
Spike Recovery:	0	_out of	(20)	outside limits.		
Comments:	CJG.,					





Data File Name : C:\HPCHEM\2\DATA\BX20321\020R0901.D Operator : C.J. Cook Page Number : 1 Instrument : BTEX2 Vial Number : 20 : X04291MSD Sample Name DF=1Injection Number: 1 Run Time Bar Code: Sequence Line : 9 Instrument Method: BX20321.ATF Acquired on : 22 Mar 95 00:31 AM Report Created on: 22 Mar 95 : BX20321.MTF 00:56 AM Analysis Method Last Recalib on : 21 Mar 95 03:32 PM Sample Amount : 0 Multiplier ISTD Amount : Sample Info : Project#: 95-0861 Client#: 24MP-6

Water

mo24

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Field Blank ^j		MacDill
Lab Sample Number	: X04294	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032129
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-Trifluorotoluene : 81%
QC Reporting Limits : 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

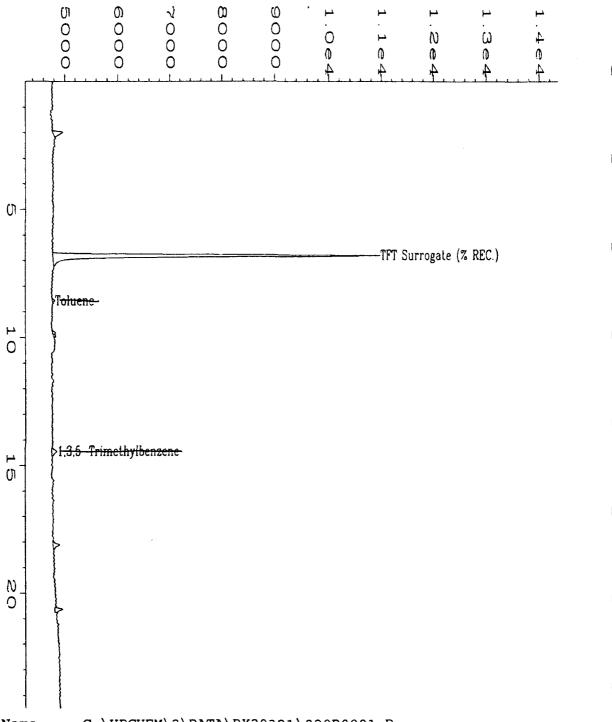
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Approved



```
Data File Name
                 : C:\HPCHEM\2\DATA\BX20321\029R0901.D
                 : C.J. Cook
Operator
                                                Page Number
                                                                  : 29
Instrument
                 : BTEX2
                                                Vial Number
Sample Name
                 : X04294 DF=1
                                                Injection Number: 1
Run Time Bar Code:
                                                                  : 9
                                                Sequence Line
Acquired on
                : 22 Mar 95 07:31 AM
                                                Instrument Method: BX2032.
                                                Analysis Method : BX20321.MT
Report Created on: 22 Mar 95
                             07:56 AM
Last Recalib on : 21 Mar 95 03:32 PM
                                                Sample Amount
Multiplier
                                                ISTD Amount
Sample Info
                 : Project#: 95-0861 Client#: Field Blank
                                                             Water
Dr. 4/13/95
```

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Trip Blank		MacDill
Lab Sample Number	: X04296	Lab Project No.	: 95-0861
Date Sampled	: 3/15/95	Dilution Factor	: 1.00
Date Received	: 3/17/95	Method	: 602
Date Extracted/Prepared	: 3/21/95	Matrix	: Water
Date Analyzed	: 3/22/95	Lab File No.	: BX2032130
		Method Blank No.	: MB032195

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	υ	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

α,α,α-TrifluorotolueneΩC Reporting Limits70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

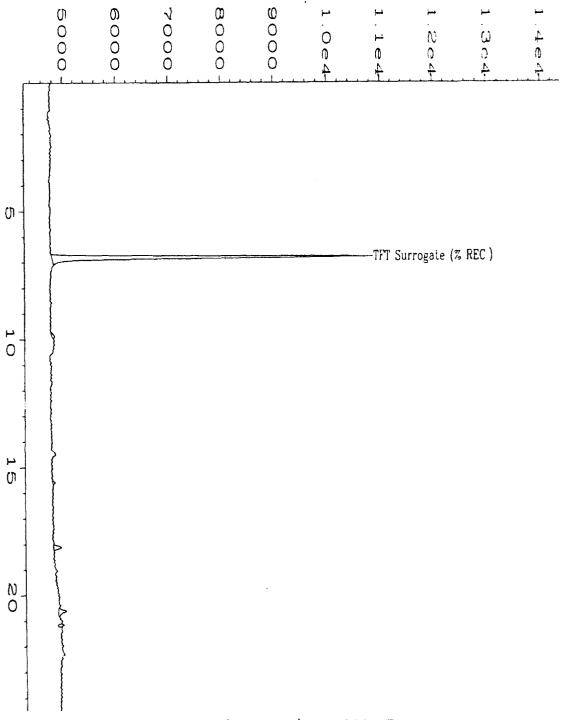
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not available.

Anályst

Approved



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```
: C:\HPCHEM\2\DATA\BX20321\030R0901.D
Data File Name
                                                Page Number
                 : C.J. Cook
Operator
                                                                 : 30
                                                Vial Number
Instrument
                 : BTEX2
                                                Injection Number : 1
                 : X04296 DF=1
Sample Name
                                                                 : 9
                                                Sequence Line
Run Time Bar Code:
                                                Instrument Method: BX20321...[]
Acquired on
                : 22 Mar 95 08:16 AM
                                                Analysis Method : BX20321.MTF
Report Created on: 22 Mar 95
                              08:41 AM
                                                Sample Amount
Last Recalib on : 21 Mar 95
                             03:32 PM
                                                ISTD Amount
Multiplier
```

: Project#: 95-0861 Client#: Trip Blank

Sample Info

Water

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report Method Blank Report

Method Blank Number

: MB032195

Client Project No.

: 722450.21020

: 3/21/95

Lab Project No.

MacDill : 95-0861

Date Extracted/Prepared Date Analyzed

Dilution Factor

: 1.00

: 3/21/95

Method

: 602

Matrix

: Water

Lab File No.

: BX2032111

	Sample				
Compound Name	Cas Number	Concentration	PQL		
Benzene	71-43-2	ug/L ∪	ug/L 4.0		
Toluene	108-88-3	υ	4.0		
Ethyl Benzene	100-41-4	U	4.0		
Total Xylene	1330-20-7	U	4.0		
Chlorobenzene	108-90-7	U	4.0		
1,3,5-trimethylbenzene	108-67-8	υ	4.0		
1,2,4-trimethylbenzene	95-63-6	υ	4.0		
1,2,3-trimethylbenzene	526-73-8	υ	4.0		
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0		

Note: Total Xylene consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak

Surrogate Recovery:

 α,α,α -Trifluorotoluene

102%

QC Reporting Limits

: 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

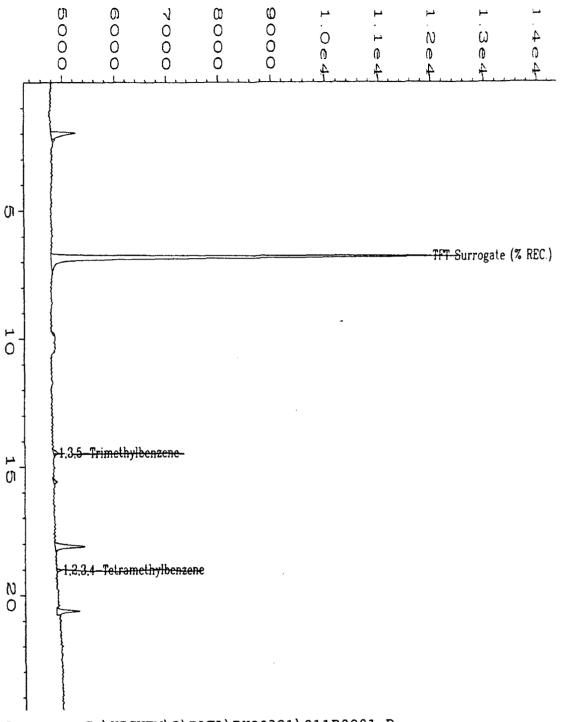
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



```
: C:\HPCHEM\2\DATA\BX20321\011R0901.D
Data File Name
                                                 Page Number
Operator
                 : C.J. Cook
                                                 Vial Number
                                                                  : 11
Instrument
                 : BTEX2
                                                 Injection Number: 1
                 : MB032195-WATER
Sample Name
                                                                  : 9
                                                 Sequence Line
Run Time Bar Code:
                                                 Instrument Method: BX20321.Mid
                              05:32 PM
Acquired on
                 : 21 Mar 95
                                                 Analysis Method : BX20321.MTH
                              05:57 PM
Report Created on: 21 Mar 95
                                                 Sample Amount
                                                                  : 0
Last Recalib on : 21 Mar 95
                              03:32 PM
                                                 ISTD Amount
Multiplier
```

pm 4/13/95

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EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report Method Blank Report

Method Blank Number

: MB032295

Client Project No. : 722450.21020

MacDill

Date Extracted/Prepared

: 3/22/95

Lab Project No.

: 95-0861

Date Analyzed

Dilution Factor

: 1.00

: 3/22/95

Method

: 602

Matrix

: Water

Lab File No.

: BX2032210

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylene	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak

Surrogate Recovery:

a,a,a-Trifluorotoluene

81%

QC Reporting Limits

: 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

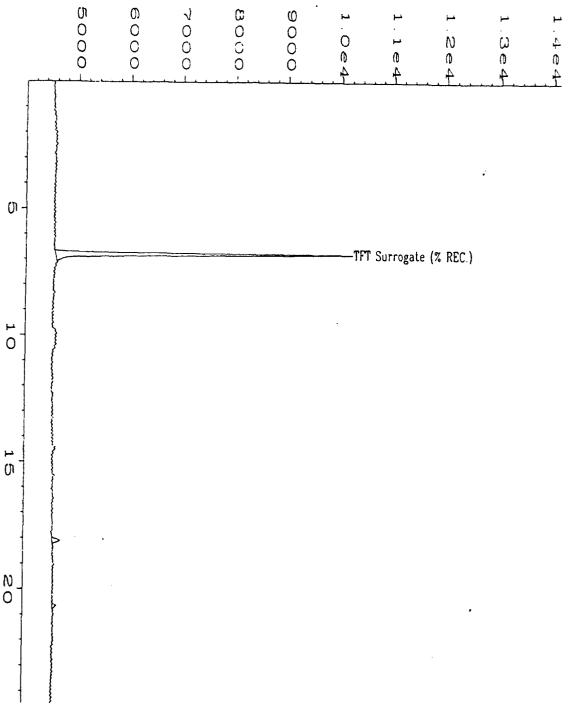
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



```
Data File Name
               : C:\HPCHEM\2\DATA\BX20322\010R0701.D
Operator
                 : C.J. Cook
                                                Page Number
Instrument
                 : BTEX2
                                                Vial Number
                                                                  : 10
Sample Name
                : MB032295-WATER
                                                Injection Number:
                                                                   1
Run Time Bar Code:
                                                Sequence Line
                                                                 : 7
Acquired on
                 : 22 Mar 95
                              05:57 PM
                                                Instrument Method: BX2032:
                                                                             Œ
Report Created on: 22 Mar 95
                              06:22 PM
                                                Analysis Method : BX20322.MTH
Last Recalib on : 22 Mar 95
                              04:04 PM
                                                Sample Amount
                                                                 : 0
Multiplier
```

ISTD Amount

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS032195 Client Project No.

: 722450.21020

Lab Project No.

MacDill : 95-0861

Date Extracted/Prepared

: 3/21/95

Dilution Factor

Date Analyzed : 3/21/95

Method

: 1.00

Matrix

: 602

: Water

Lab File No.

: BX2032112

	LCS					
Compound Name	Cas Number	Concentration	QC Limit			
		ug/L	ug/L			
Benzene	71-43-2	37	23-44			
Toluene	108-88-3	36	26-43			
Ethyl Benzene	100-41-4	36	26-48			
m,p-Xylene	NA	37	25-47			
o-Xylene	95-47-6	35	26-48			
Chlorobenzene	108-90-7	36	28-46			
1,3,5-trimethylbenzene	108-67-8	37	24-47			
1,2,4-trimethylbenzene	95-63-6	30	23-46			
1,2,3-trimethylbenzene	526-73-8	35	29-49			
1,2,3,4-tetramethylbenzene	488-23-3	34	NA			

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a-Trifluorotaluene

101%

QC Reporting Limits

: 70%-130%

QUALIFIERS:

E = Extrapolated value

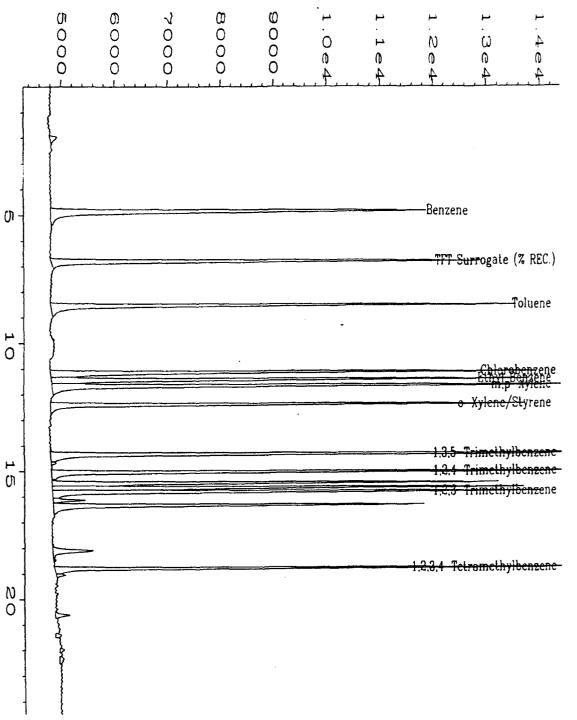
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not ayallable



: C:\HPCHEM\2\DATA\BX20321\012R0901.D Data File Name Page Number Operator : C.J. Cook Vial Number : 12 : BTEX2 Instrument Injection Number: 1 : LCS032195 Sample Name Sequence Line Run Time Bar Code: Instrument Method: BX20321 : 21 Mar 95 06:19 PM Acquired on Report Created on: 21 Mar 95 Last Recalib on : 21 Mar 95 Analysis Method : BX20321.MTH 06:44 PM : 0 Sample Amount 03:32 PM ISTD Amount Multiplier

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20321\OTGR0901.D
Onerator : C.J. Cook Page N

Acquired on : 21 Mar 95 04:44 PM Instrument Method: BX20321.MTH Report Created on: 22 Mar 95 08:57 AM Analysis Method : BX20321.MTH

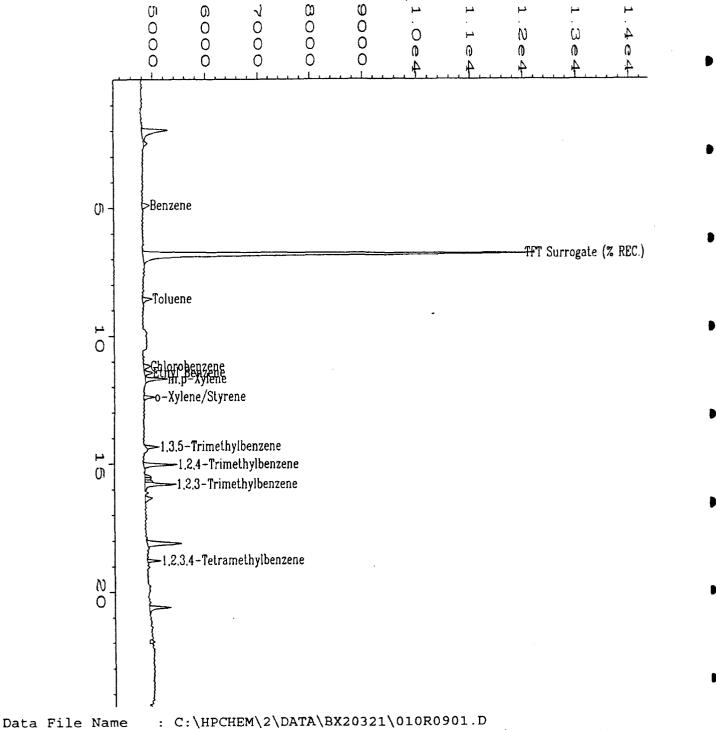
Last Recalib on : 22 Mar 95 08:53 AM Sample Amount : 0
Multiplier : 1 ISTD Amount :

Sig. 2 in C:\HPCHEM\2\DATA\BX20321\010R0901.D

Sig. 2 In C. In Chan /2 /DATA /DA20321 / OTOKO301.D							
Area	Type	Width	Ref#	ug/L	Name		
]					
562	`VV	0.093	1	0.898	,		
1177	PV	0.110	1	2,727	Benzene		
48550	PV	0.100	1-R	94.975	TFT Surrogate (% REC.)		
1297	PV	0.089	1	2.663	Toluene		
1029	BV	0.099	l	2.691	Chlorobenzene		
1070	VV	0.095	1	1.471	Ethyl Benzene		
2403	VV	0.085	1	0.493	m,p-Xylene		
1070	BV	0.076	1	1.698	o-Xylene/Styrene		
1247	PV	0.073	1	0.439	1,3,5-Trimethylbenzene		
3592	PV	0.084	1	1.226	1,2,4-Trimethylbenzene		
* not found :	k		1				
484	BV	0.068	1	1.358			
3755	VV	0.089	1	0.580	1,2,3-Trimethylbenzene		
1098	VV	0.101	1	13.315			
1068	PV	0.062	1	1.525	1,2,3,4-Tetramethylbenzene		
	Area 562 1177 48550 1297 1029 1070 2403 1070 1247 3592 * not found 484 3755 1098	Area Type	Area Type Width	Area Type Width Ref#	Area Type Width Ref# ug/L		

Time Reference Peak Expected RT Actual RT Difference 3 6.760 6.805 0.045

Not all calibrated peaks were found



Page Number : 1 Operator : C.J. Cook : 10 Vial Number Instrument : BTEX2 Injection Number: 1 : 1.0 ppb BTEX MIX Sample Name : 9 Sequence Line Run Time Bar Code: Instrument Method: BX20321 : 21 Mar 95 04:44 PM Acquired on : BX20321.MTH Report Created on: 21 Mar 95 Analysis Method 05:09 PM Sample Amount : 0 : 21 Mar 95 03:32 PM Last Recalib on ISTD Amount Multiplier : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + D Sample Info 1,2,3 & 1,2,4-Trimethylbenzene

Data File Name : C:\HPCHEM\2\DATA\BX20322\008R0701.D

rerator : C.J. Cook Page Number : 1
strument : BTEX2 Vial Number : 8
Sample Name : 1.0 ppb BTEX MIX Injection Number : 1
Run Time Bar Code: Sequence Line : 7

Acquired on : 22 Mar 95 04:24 PM Instrument Method: BX20322.MTH Report Created on: 23 Mar 95 08:56 AM Analysis Method : BX20322.MTH

Last Recalib on : 22 MAR 95 04:04 PM Sample Amount : 0 Multiplier : 1 ISTD Amount :

Sample Info : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); +

1,2,3 & 1,2,4-Trimethylbenzene

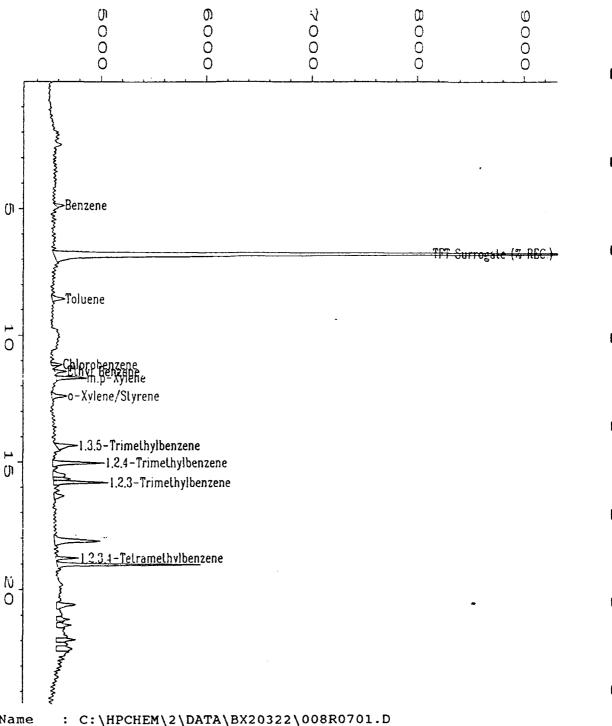
Sig. 2 in C:\HPCHEM\2\DATA\BX20322\008R07'1.D

Ret Time	Aı	rea	Type	Width	Ref#	ug/L	Name
2.452	* not	found ;			1		
4.860		438		0.067	1	1.864	Benzene
6.789		39381	PV	0.099	1-R	87.650	TFT Surrogate (% REC.)
8.562		933	PV	0.094	1	1.820	Toluene
11.144		534	BV	0.069	1	1.698	Chlorobenzene
11.428		529	PV	0.064	1	0.289	-Ethyl Benzene
11.672		1477	BV	0.077	1	-2.219	m,p-Xylene
12.389		1035	BV	0.093	1	1.133	o-Xylene/Styrene
14.332		1481	BV	0.103	1	-0.0133	1,3,5-Trimethylbenzene
15.022		2932	BV	0.083	1	1.035	1,2,4-Trimethylbenzene
15.240	* not	found :	k		1		
15.484		1180	PV	0.154	1	4.187	
-15.799		2933	VV	0.079	1	0.0762	1,2,3-Trimethylbenzene
16.330		794	VV	0.105	1	10.218	
18.764		948	VV	0.059	1	0.600	1,2,3,4-Tetramethylbenzene

Time Reference Peak Expected RT Actual RT Difference 6.750 6.789 0.039

Not all calibrated peaks were found

.



Data File Name Page Number Operator : C.J. Cook Vial Number Instrument : BTEX2 : 8 Injection Number: 1 Sample Name : 1.0 ppb BTEX MIX Run Time Bar Code: Sequence Line : 7 Instrument Method: BX20327 Acquired on : 22 Mar 95 04:24 PM Analysis Method : BX20322 04:50 PM Report Created on: 22 Mar 95 Sample Amount : 0 Last Recalib on : 22 Mar 95 04:04 PM ISTD Amount Multiplier : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); + Sample Info

1,2,3 & 1,2,4-Trimethylbenzene

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021



TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled

: 3/15,16/95

Client Project Number

: 722450.21020/MACDILL AFB

Date Received

: 3/17/95

Lab Project Number

: 95-0861 : Water

Date Prepared Date Analyzed

: 3/20/95 : 3/20,21/95 Matrix Method Number

: 5030/Mod.8015

Evergreen	Client	Surrogate	TVH	MDL
Sample #	Sample #	Recovery	mg/L	mg/L
MB032095	METHOD BLANK	100%	U	0.1
X04288	24MP-10D	114%	U	0.1
X04289	24MP-10S	103%	U	0.1
X04290	MD24-6A	116%	0.7	0.1
X04291	MD24-6	121%	U	0.1
X04291 DUP	MD24-6	98%	U	0.1
X04292	24MP-9D	124%	0.3	0.1
X04293	24MP-9S	121%	0.6	0.1
X04294	FIELD BLANK	123%	U	0.1
X04296	TRIP BLANK	128%	U	0.1
X04297	24MP-7D	106%	U	0.1
X04298	24MP-7S	113%	U	0.1
X04299	75MP-1S	120%	U	0.1
x04300	75MP-1D	124%	U	0.1

QUALIFIERS

U = TVH analyzed for but not detected.

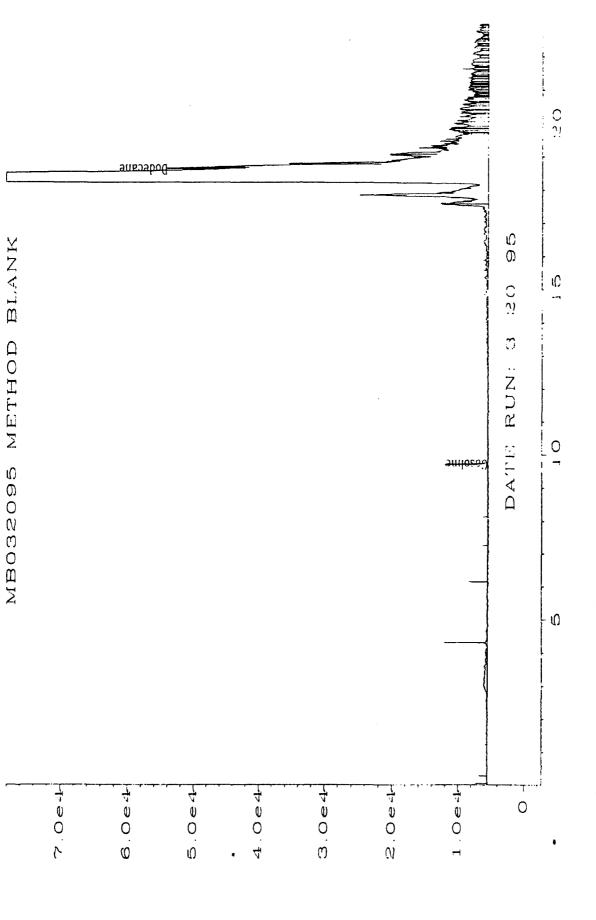
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

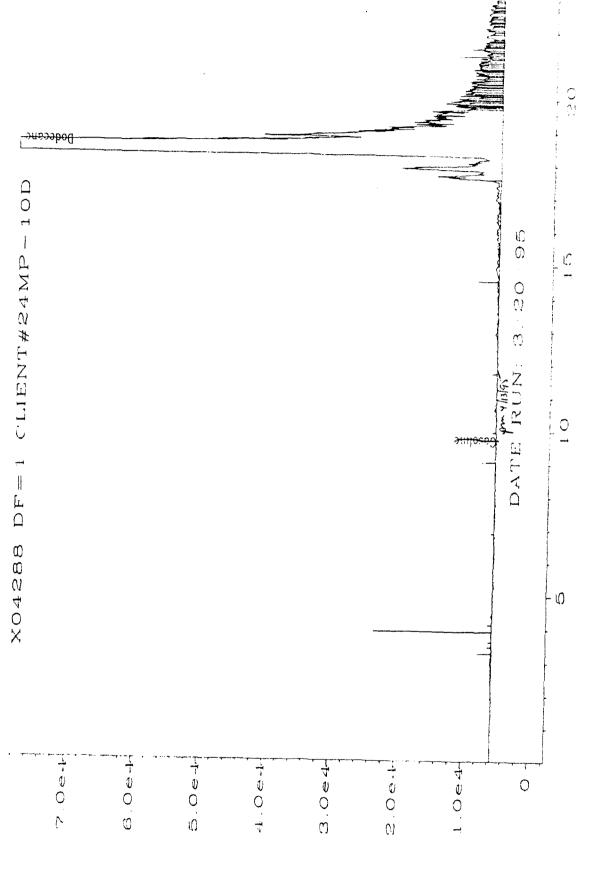
Analyst

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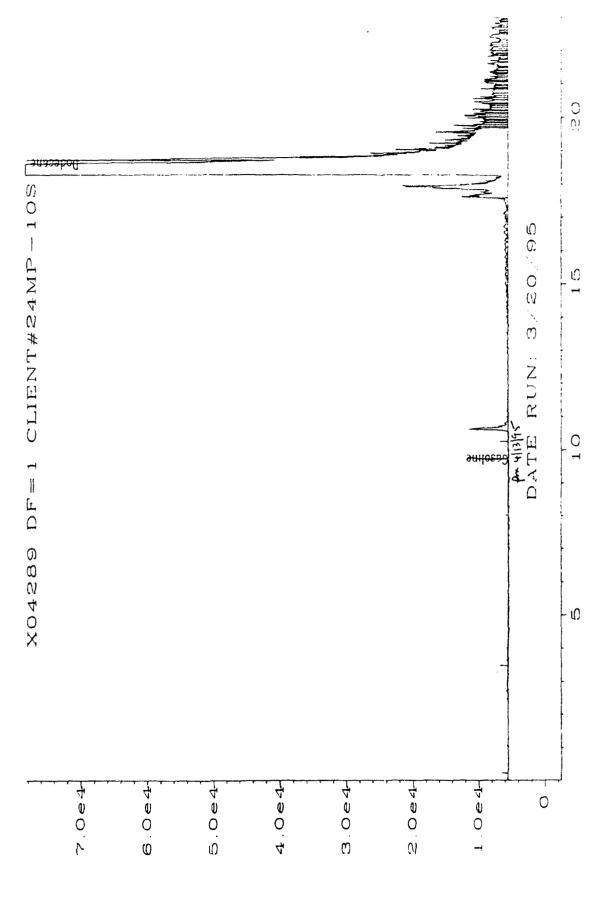


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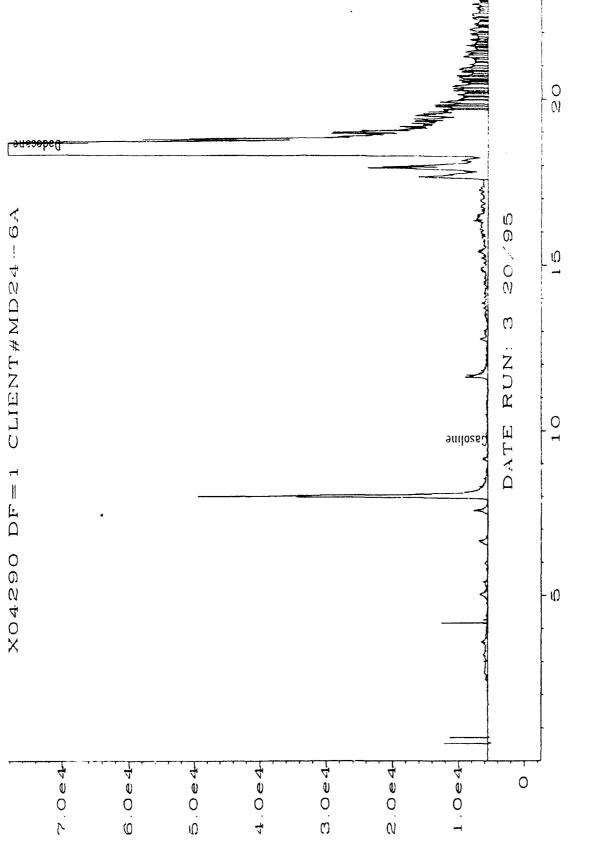
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DATA TVH0320 010F0101 D CHPCHEM ï Sig

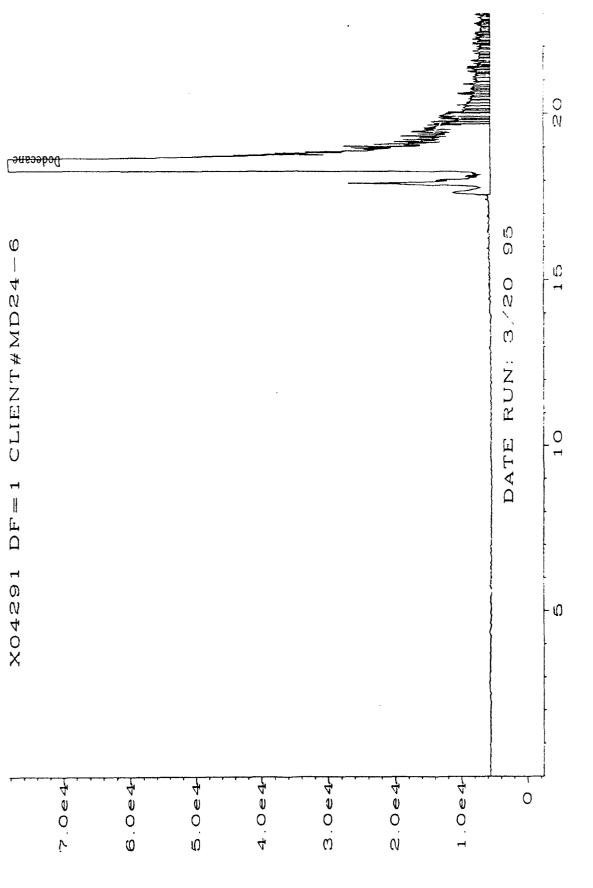


in C:NHPCHEN INDATA TVH0320 013F0101 D Sign



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C:\HPCHEM 1\DATA\TVH0320\014F0101\D 1 in Si Si

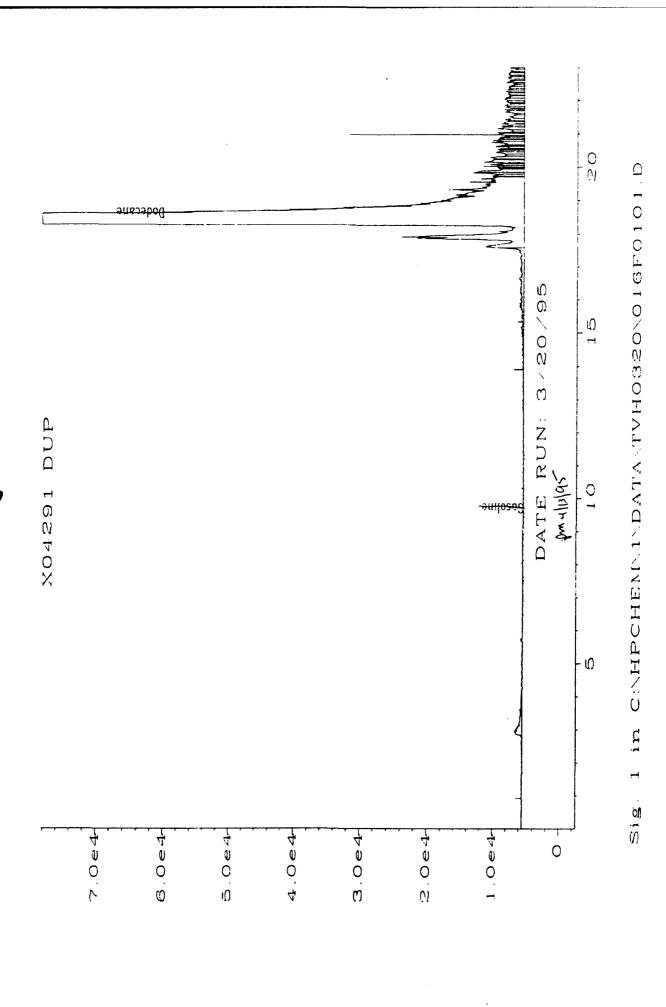


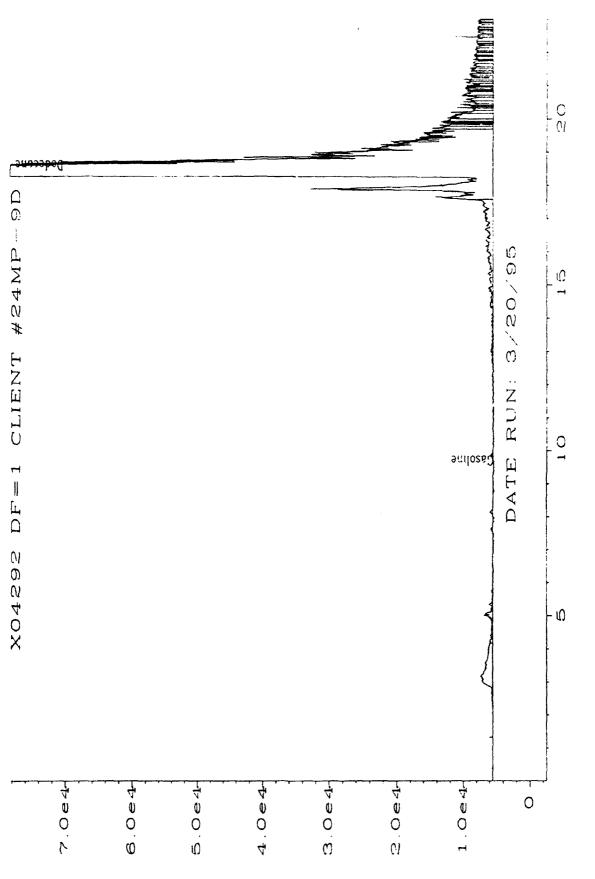
CHAPCHEMAINDATA TVHOB20 015F0101.D 1 in SI SI

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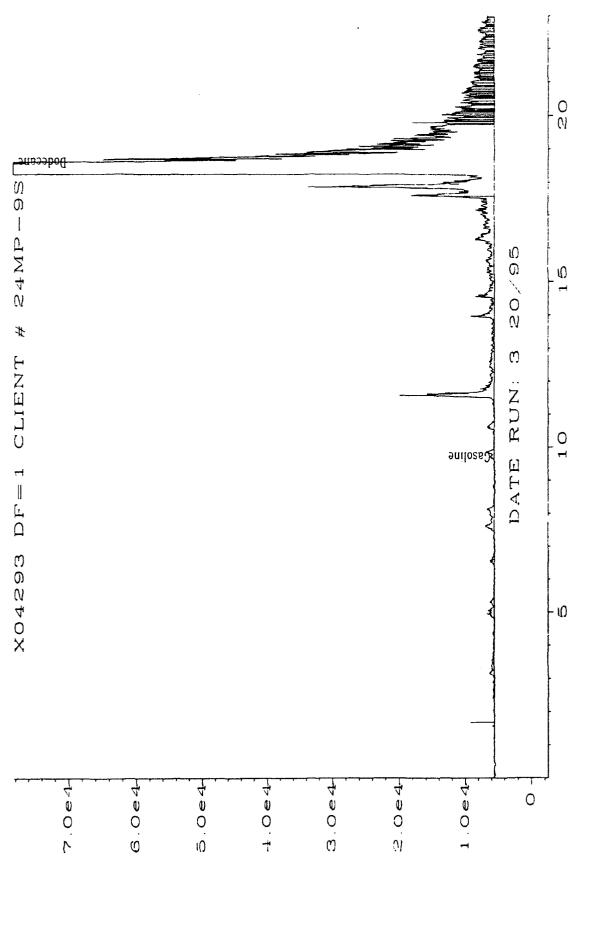
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Sig. 1 in Chaptemanabata TVH0320.017F0101 D

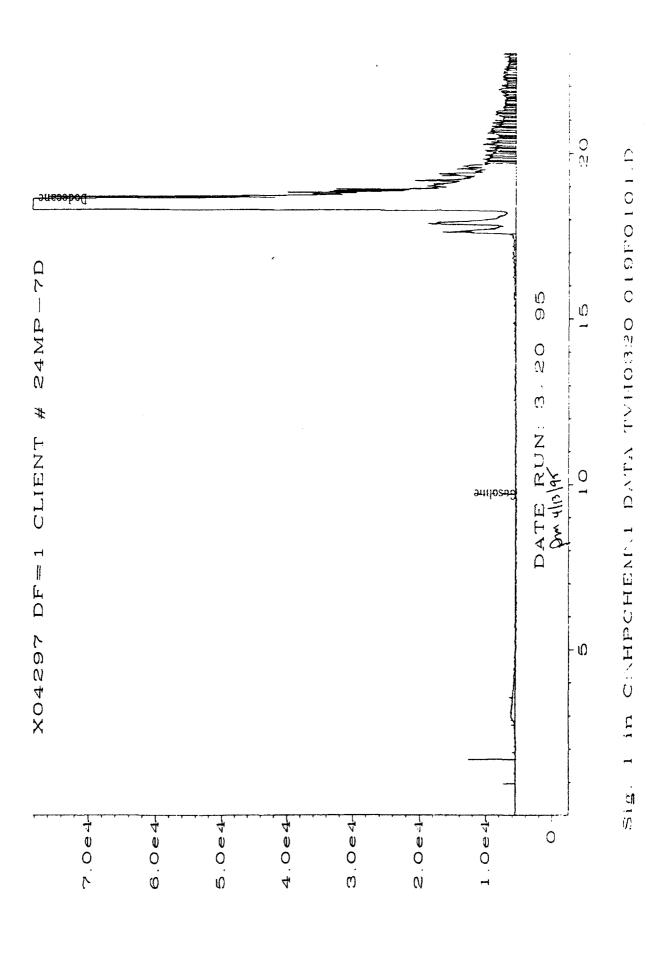


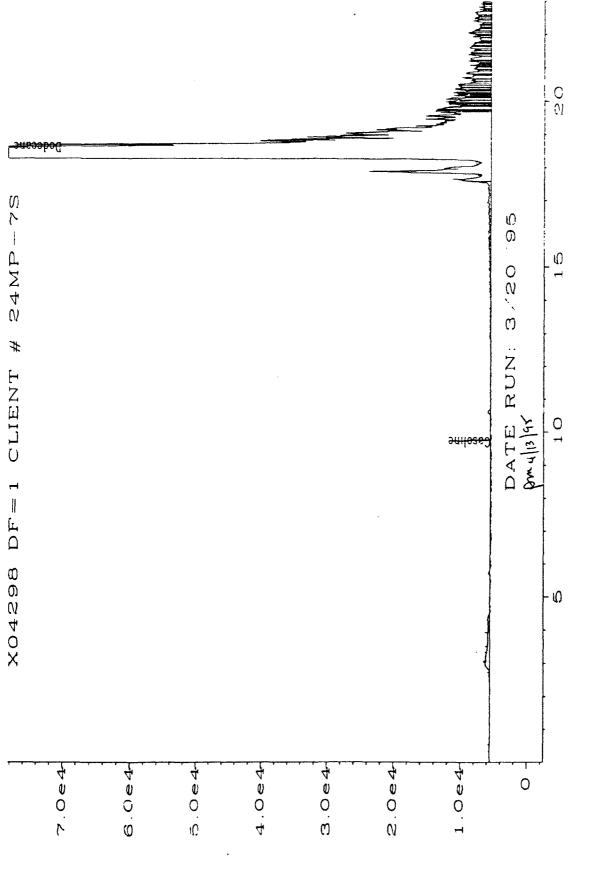
C:\HPCHEN:1\DATA\TVH0320\018F0101.D in Sign

4

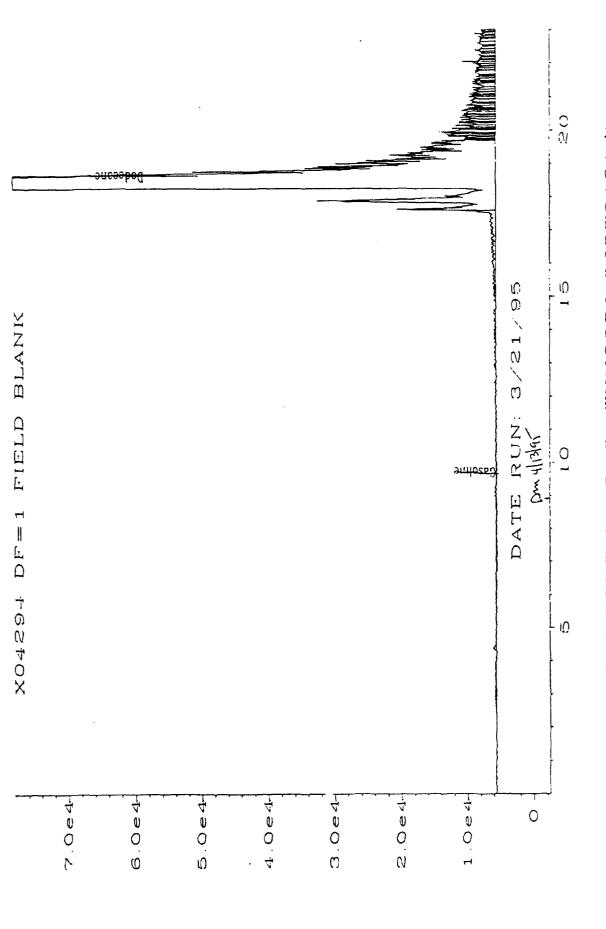
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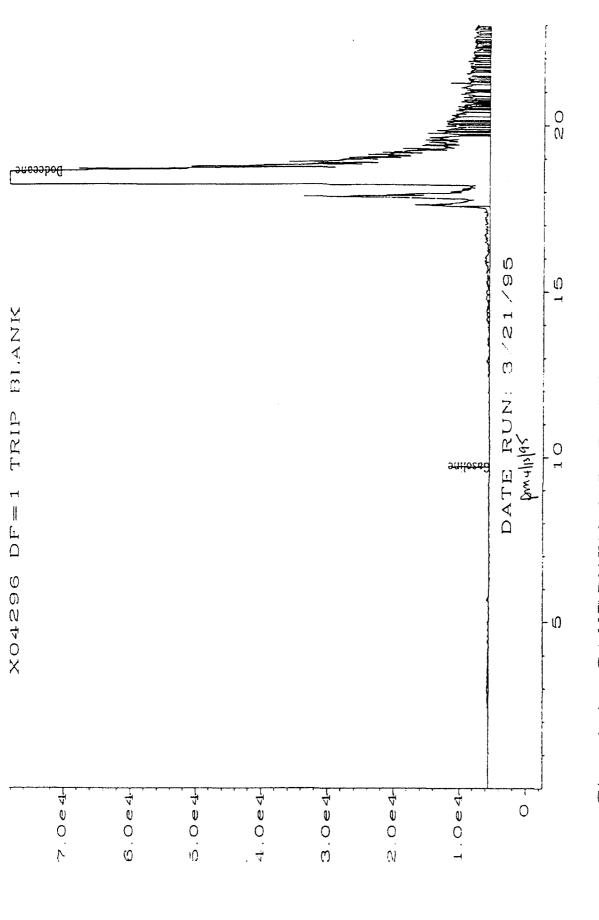


CINHPCHEM I DATANTVHOBZO OZOFOLO in Sig



1 in CAMPCHEMAID "ANTVHOSEO OZSFOIOLD Si Si

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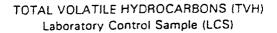


C:\HPCHEM\1\DATA\TV\HO320\024F0101.D i D Sig.

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EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021



LCS Number

: LCS032095

Client Project Number

: 722450.21020/MACDILL AFB

Date Prepared

: 3/20/95

Lab Project Number

: 95-0861

Date Analyzed

: 3/20/95

Matrix

: WATER

Sequence Number

: TVH9

Method Number

: 5030/8015 MOD

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/L	QC Limit mg/L
Gasoline	5.00	5.39	3.5-6.5

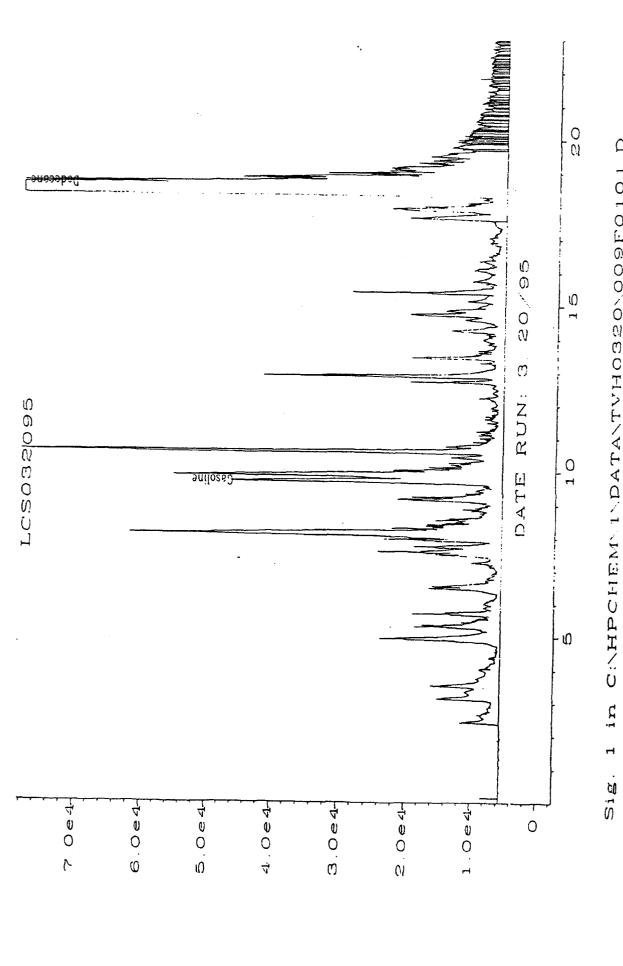
QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.



C:\HPCHEM\1\DATA\TVHO320\009F0101.D

Anions

						722450.21020
Date	Sampled	:	3/15,16/95	Client Project ID.	:	/Mac Dill AFB
Date	Received	:	3/16/95	J	:	95-0861
Date	Prepared	:	3/17/95	Method	:	EPA 300.0
Date	Analyzed	:	3/17/95	Matrix	:	Water
	•			Detection Limit	:	0.25 (mg/L)

Evergreen Sample #	Client <u>Sample ID</u>	Sulfate (mg/L)
X04288	24MP-10D 24MP-10S	5.78~ 3.64
X04289 X04290	MD24-6A	7.34
X04291 X04292	MD24-6 24MP-9D	6.38 ^{-/} 12.1
X04293	24MP-9S	1.91
X04297 X04298	24MP-7D 24MP-7S	79.2 76.0
X04299	75MP-1S 75MP-1D	35.8 15.1
X04300 X04300 Dup	75MP-1D Dup	14.7
Method Blank	c 3-17-95	<0.250

Quality Assurance

	-	Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result <u>(mg/L)</u>	% Recovery
X04300	75MP-1D Matrix Spike	10.0	15.2	25.7	105
XC4300	75MP-1D Matrix Spike Dup	10.0	15.2	25.3	102
	MS/MSD RPD				3.09
X04300/X	04300 Dup RPD				2.68

Analysk

Approved

0851cm.25

Anions

Wate Prepared • 3/17/95 Markad mar and	Mac Dill AFB 5-0861
Date Prepared: 3/17/95 Method: EPA 300.0	PA 300.0

Date Analyzed: 3/17/95 Matrix : Water Detection Limit : 0.25 (mg/L)

Evergreen	Client	
Sample #	<u>Sample ID</u>	Chloride (mg/L)
X04288	24MP-10D	144
X04289	24MP-10S	4.18
X04290	MD24-6A	16.8
X04291	MD24-6	637_
X04292	24MP-9D	329
X04293	24MP-9S	12.1
X04297	24MP-7D	1130 .
X04298	24MP-7S	115
X04299	75MP-1S	13.4
X04300	75MP-1D	9.75
X04300 Dup	75MP-1D Dup	9.62

Quality Assurance

<0.250

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04300	75MP-1D Matrix Spike	10.0	9.75	20.1	104
X04300	75MP-1D Matrix Spike Dup	10.0	9.75	20.0	102
	MS/MSD RPD				1.36
X04300/X	04300 Dup RPD				1.34

Analyst

Method Blank 3-17-95

Approved

0861tm.25

<u>Anions</u>

						722450.21020
Date	Sampled	:	3/15,16/95	Client Project ID.	:	/Mac Dill AFB
Date	Received	:	3/16/95			95-0861
Data	Prenared		2/17/05	Mathod		ED3 200 0

Date Prepared: 3/17/95 Method: EPA 300.0
Date Analyzed: 3/17/95 Matrix: Water

Detection Limit : 0.076 (mg/L)

Evergreen Sample #	Client Sample ID	Nitrita NI (mm/I)
Samble #	Sample ID	Nitrite-N (mg/L)
X04288	24MP-10D	<0.076
X04289	24MP-10S	<0.076
X04290	MD24-6A	<0.076′
X04291	MD24-6	<0.760*´
X04292	24MP-9D	<0.760*
X04293	24MP-9S	<0.076
X04297	24MP-7D	<7.60*
X04298	24MP-7S	<0.760*
X04299	75MP-1S	<0.076
X04300	75MP-1D	<0.076
X04300 Dup	75MP-1D Dup	<0.076
Method Blar	ık 3-17-95	<0.076

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04300	75MP-1D Matrix Spike	10.0	<0.250	9.86	98.6
X04300	75MP-1D Matrix Spike Dup	10.0	<0.250	9.05	90.5
	MS/MSD RPD				8.57

X04300/X04300 Dup RPD

NC

- * = Increased detection limit due to matrix interference.
 ** = Quality assurance results reported as Nitrite (NO₂).
- NC = Not Calculated because sample and/or duplication results below detection limit.

Analyst

Approved

0861tm.25

Anions

722450.	21020

Date Sampled : 3/15,16/95 Client Project ID. : /Mac Dill AFB Date Received : 3/16/95 Lab Project No. : 95-0861

Date Prepared: 3/17/95 Method: EPA 300.0
Date Analyzed: 3/17/95 Matrix: Water

Detection Limit : 0.056 (mg/L)

Evergreen Sample #	Client <u>Sample ID</u>	Nitrate-N (mg/L)
X04288	24MP-10D	<0.056
X04289	24MP-10S	<0.056
X04290	MD24-6A	<0.056
X04291	MD24-6	2.46
X04292	24MP-9D	< 0.056
X04293	24MP-9S	<0.056
X04297	24MP-7D	<0.056
X04298	24MP-7S	<0.056
X04299	75MP-1S	<0.056
X04300	75MP-1D	<0.056
X04300 Dup	75MP-1D Dup	<0.056
Method Blan	k 3-17-95	<0.056

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04300	75MP-1D Matrix Spike	10.0	<0.250	9.63	96.3
X04300	75MP-1D Matrix Spike Dup	10.0	<0.250	9.42	94.2
	MS/MSD RPD				2.20

X04300/X04300 Dup RPD

NC

** = Quality assurance results reported as Nitrate (NO₃).

NC = Not Calculated because sample and/or duplication results below detection limit.

Dela J. Byen Analyst

Approved

0861tm.25

Miscellaneous Analyses

Date Sampled : 3/15,16/99 Date Received : 3/17/95 Date Prepared : 3/18/95 Date Analyzed : 3/18/95	Client Project ID. Lab Project No. Detection Limit Method	722450.21020 : MacDill AFB : 95-0861 : 5.00 mgCaCO ₃ /L : EPA 310.1
---	---	--

Evergreen Sample #	Client Sample ID	<u>Matrix</u>	Total Alkalinity (mgCaCO ₃ /L)
X04288	24MP-10D	Water	227
X04289	24MP-10S	Water	187
X04290	MD24-6A	Water	309
X04291	MD24-6	Water	173
X04292	24MP-9D	Water	205
X04293	24MP-9S	Water	271
X04297	24MP-7D	Water	200
X04298	24MP-7S	Water	244
X04299	75MP-1S	Water	74.2
X04299 Duplicate	75MP-1S Duplicate	Water	73.7
X04300	75MP-1D	Water	<5.00
Method Blank 3/18/95			<5.00

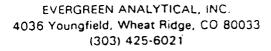
Quality Assurance

	True Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% Recovery
APG Reference Minerals Lot #13862	11.8	10.3	87.3
X04299/X04299 Dup RPD			0.680

Analyst

Approved

0861JJ.4





TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled

: 3/15,16/95

Client Project Number

: 722450.21020/MACDILL AFB

Date Received Date Prepared : 3/17/95 : 3/20/95 Lab Project Number Matrix : 95-0861 : Water

Date Analyzed

: 3/20/95 : 3/20,21/95

Method Number

: 5030/Mod.8015

Evergreen	Client	Surrogate	TVH	MDL
Sample #	Sample #	Recovery	mg/L	mg/L
MB032095	METHOD BLANK	100%	U	0.1
X04288	24MP-10D	114%	U	0.1
X04289	24MP-10S	103%	υ	0.1
X04290	MD24-6A	116%	0.7	0.1
X04291	MD24-6	121%	U	0.1
XC4291 DUP	MD24-6	98%	U	0.1
X04292	24MP-9D	124%	0.3	0.1
X04293	24MP-9S	121%	0.6	0.1
X04294	FIELD BLANK	123%	U	0.1
X04296	TRIP BLANK	128%	U	0.1
X04297	24MP-7D	106%	U	0.1
X04298	24MP-7S	113%	U	0.1
X04299	75N.2-1S	120%	U	0.1
X04300	75MP-1D	124%	U	0.1

QUALIFIERS

U = TVH analyzed for but not detected.

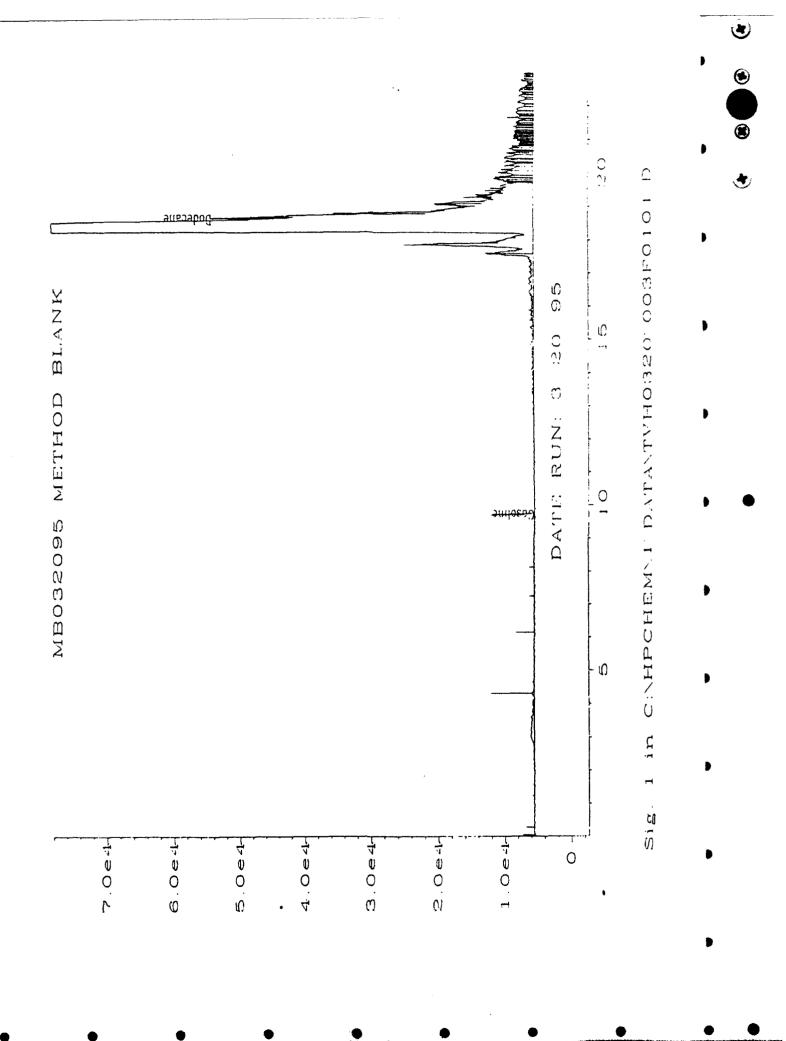
B = TVH found in blank as well as sample (blank data should be compared).

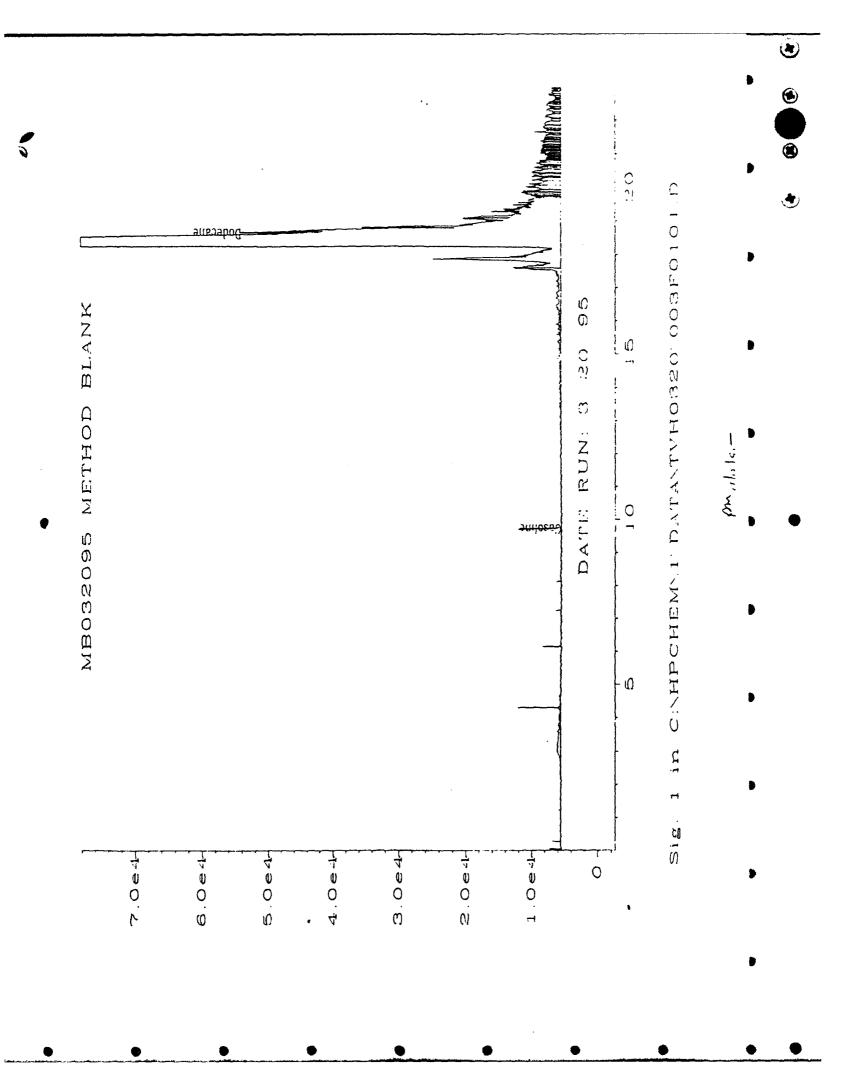
E = Extrapolated value.

MDL = Method Detection Limit

Analyst

M. Due J. One Approved







CASE NARRATIVE

Evergreen Analytical Laboratory Project (EAL) #: 95-0820

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

<u>Sample Receipt</u>

On March 14, 1995, 14 soil and one rinseate blank were received in good condition at Evergreen Analytical Laboratory (EAL). Refer to the EAL Sample Log Sheet for specific log-in information and crossreference of EAL and PES sample identifications.

BTEX, Soil Matrix, Method SW8020
The following PES samples were analyzed at a dilution due to target analytes in the sample, the reporting levels were increased accordingly; 24 MP-1A(3'-4'), 24 MP-2(3'-4'), 24 SS-2(4'-6'), 75SS-1(7-9), and 75SS-2(9-11) at a dilution factor of 5. Sample 75SS-1(3-5) was analyzed at DF = 5 and DF = 125, and 75SS-2(3-5) at DF = 250 and DF = 1250.

The matrix spike sample exhibited surrogate recoveries for the triand tetra-methylbenzenes below the EAL control limit, and the matrix spike duplicate sample did not purge. Please see the Laboratory Control Spike (LCS) sample for acceptable spiked sample recovery.

BTEX, Water Matrix, Method 602 The Trip Blank was analyzed with no anomalies to report.

Total Volatile Hydrocarbon (TVH), Soil Matrix, Method 8015M The relative percent difference (RPD) between the laboratory duplicate samples were not within the control limit of 30% due to sample inhomogeneity. There were no other quality control anomalies to report.

Total Extractable Hydrocarbon (TEH), Soil Matrix, Method 8015M The surrogate recovery for 75SS-2(3-5) was outside the control limits due to the concentration of analyte in the sample. other quality control was within limits.

Page Two Case Narrative Parsons Engineering Science 95-0820

Total Organic Carbon in Soil (TOC)
TOC was analyzed by Huffman Laboratories of Golden, Colorado. TOC was determined by analyzing for total carbon (TC) and inorganic (carbonate) carbon (CC), then calculating the difference as TOC. The report from Huffman is included.

Patricia A. McClellan, Project Manager

	Sheet	Project	# <u>23-0020</u>	
Date(s) Sampled: 03/08,09,10,1	<u>13/95 COC</u> .	Date Due:	03/17/95	
ate Received: 03/14/95 100		lding Time(s):	03/22,23,3 TEPH,TVPH Rush STANI	_
Client: PARSONS ENGINEERING SC	CIENCE, INC.	Shipping Char	ges N/A	-
Address: 1700 BROADWAY, SUITE	900	E.A. Cooler	604	
DENVER, CO 80290		Airbill # FEI	EX 958182	6236
Contact: TODD WIEDEMEIER		Custody Seal	Intact?	N/A
Client P.O.		Cooler	ROLLIES _	Υ Υ
Phone #831-8100 Fax #831- Special Invoicing/Billing		Sample Tags Sample Tags Sample(s) Se	Listed?	Y Y Y
Lab Client [D # ID#	Analysis	Mtx	Btl Loc	
)4173A/B 24 MP-1A(3'-4') (04174A/B 24 MP-1B(8'-9')			2WM 2	
(04175A/B 24 MP-2 (3'-4')	ì	<u>\$</u>	2WM 2 2WM 2	
(04176A/B 24 MP-3 (3-5)		S	2WM 2	
	1		~ **** ~ ~ ~ ~	
1041//A/D 24 MP=4 (3-3)		S	2WM 2	
		<u> </u>	2WM 2 2WM 2	
KO4178A/B 24 MP-5 (3-5)	* BTEX			
(04178A/B 24 MP-5 (3-5) (04179A/B 24 MP-6 (4-6)	* BTEX	S	2WM 2	I
(04178A/B 24 MP-5 (3-5) (04179A/B 24 MP-6 (4-6) (04181A/B 24SS-1 (4-6)	* BTEX * BTEX	s s	2WM 2 2WM 2	
(04178A/B 24 MP-5 (3-5) (04179A/B 24 MP-6 (4-6) (04181A/B 24SS-1 (4-6) (04182A/B 24SS-2 (4-6)	* BTEX * BTEX * BTEX * BTEX * BTEX	\$ \$ \$ \$ \$	2WM 2 2WM 2 2WM 2	
(04178A/B 24 MP-5 (3-5) (04179A/B 24 MP-6 (4-6) (04181A/B 24SS-1 (4-6) (04182A/B 24SS-2 (4-6) (04183A/B 75SS-1 (3-5)	* BTEX * BTEX * BTEX * BTEX * BTEX	\$ \$ \$ \$	2WM 2 2WM 2 2WM 2 2WM 2	
(04178A/B 24 MP-5 (3-5) (04179A/B 24 MP-6 (4-6) (04181A/B 24SS-1 (4-6) (04182A/B 24SS-2 (4-6) (04183A/B 75SS-1 (3-5) (04184A/B 75SS-1 (7-9)	* BTEX * BTEX * BTEX * BTEX * BTEX	\$ \$ \$ \$ \$	2WM 2 2WM 2 2WM 2 2WM 2 2WM 2	
(04178A/B 24 MP-5 (3-5) (04179A/B 24 MP-6 (4-6) (04181A/B 24SS-1 (4-6) (04182A/B 24SS-2 (4-6) (04183A/B 75SS-1 (3-5) (04184A/B 75SS-1 (7-9) (04185A/B 75SS-2 (3-5)	* BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX	s s s s maisture) s	2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2	
(04178A/B 24 MP-5 (3-5) (04179A/B 24 MP-6 (4-6) (04181A/B 24SS-1 (4-6) (04182A/B 24SS-2 (4-6) (04183A/B 75SS-1 (3-5) (04184A/B 75SS-1 (7-9) (04185A/B 75SS-2 (3-5) (04186A/B 75SS-2 (9-11)	* BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX	s s s s maisture)s	2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2	
X04177A/B 24 MP-4 (3-5) X04178A/B 24 MP-5 (3-5) X04179A/B 24 MP-6 (4-6) X04181A/B 24SS-1 (4-6) X04182A/B 24SS-2 (4-6) X04183A/B 75SS-1 (3-5) X04184A/B 75SS-1 (7-9) X04185A/B 75SS-2 (3-5) X04186A/B 75SS-2 (9-11) X04187A TRIP BLANK R=Sample to be returned	* BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX	s s s s s s s s s s w	2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 40V 2	
X04178A/B 24 MP-5 (3-5) X04179A/B 24 MP-6 (4-6) X04181A/B 24SS-1 (4-6) X04182A/B 24SS-2 (4-6) X04183A/B 75SS-1 (3-5) X04184A/B 75SS-1 (7-9) X04185A/B 75SS-2 (3-5) X04186A/B 75SS-2 (9-11) X04187A TRIP BLANK	* BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX * BTEX	s s s s s s s s s s w	2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 2WM 2 40V 2	cctg <u>1</u>
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Lab ID #	Client ID#	Analysis	Mtx	Bt1	Loc)
X04173C	24 MP-1A(3'-4')	TVH MSCIS GASCOM	r ^{>} s	2WM	2	****
X04174C	24 MP-1B(3'-9')	TVH	s	2WM	2	
X04175C	24 MP-2 (3'-4')	TVH	<u>s</u>	2WM	2	
X04176C	24 MP-3 (3-5)	TVH	S	2WM	2	
X04177C	24 MP-4 (3-5)	TVH	S	2WM	2	
X04178C	24 MP-5 (3-5)	TVH	s	2WM	2	
X04179C	24 MP-6 (4-6)	TVH	S	2WM	2	
X04181C	24SS-1 (4-6)	TVH	s	2WM	22	
X04182C	24SS-2 (4-6)	TVH	S	2WM	2	-
X04183C	75SS-1 (3-5)	mmy 1 (17)	s	2WM	2	
X04184C	75SS-1 (7-9)	TVH ms/ms	s	2WM	2	
X04185C	75SS-2 (3-5)	TVH	S	2WM	2	
X04186C	75SS-2 (9-11)	TVH	S	2WM	2	
X04173D	24 MP-1A(3'-4')	TEH	s	2WM	B2	
X04174D	24 MP-1B(8'-9')	TEH (% MOISTURE)	<u>s</u>	2WM	B2	
X04175D	24 MP-2(3'-4')	TEH MISCUS JPS	s	2WM	B2	
X04176D	24 MP-3 (3-5)	TEH	s	2WM	B2	
X04177D	24 MP-4 (3-5)	TEH	s	2WM	B2	
X04178D	24 MP-5 (3-5)	TEH	s	2WM	B2	- b
X04179D	24 MP-6 (4-6)	TEH Muse	s	2WM	B2	
X04181D	24SS-1 (4-6)	TEH IN PART WEEK	s	2WM	B2	
X04182D	24SS-2(4-6)		S	2WM	B2	
X04183D	75SS-1 (3-5)	TEH _ MS M S	s	2WM	B2	
X04184D	75SS-1 (7-9)	TEH/	s	2WM	B2	
X04185D	75SS-2 (3-5)	TEH/	S	2WM	B2	
X04186D	75SS-2(9-11)	TEH/	S	2WM	B2	
X04173E	24 MP-1A(3'-4')	% MOISTURE /	s	2WM	B2	
X04175E	24 MP-2(3'-4')	% MOISTURE /	S	2WM	B2	
X04176E	24 MP-3 (3-5)	% MOISTURE	s	2WM	B2	
X04177E	24 MP-4 (3-5)	% MOISTURE	s	2WM	B2	
X04178E	24 MP-5 (3-5)	% MOISTURE /	s_	2WM	B2	b
X04179E	24 MP-6 (4-6)	% MOISTURE 🗸	S	2WM	B2	
X04181E	24SS-1 (4-6)	% MOISTURE -	s	2WM	B2	
X04182E	24SS-2(4-6)	% MOISTURE	s	2WM	B2	
X04183E	75SS-1 (3-5)	% MOISTURE /	s	2WM	B2	b
X04184E	75SS-1 (7-9)	% MOISTURE	s	2WM	B2	
		Page 2 of 3 F	ages			

age 2 of 3 Pages Project <u># 95-0820</u>

R=Sample to be returned

Lab	Client				
ID #	ID#	Analysis	Mtx	Btl	Loc
704185E	75SS-2 (3-5)	% MOISTURE	S	2WM	B2
J4186E	75SS-2(9-11)	% MOISTURE	<u>s</u>	2WM	B2
X04176D	24 MP-3 (3-5)	TOC ~	s	2WM	OUT
X04177D	24 MP-4 (3-4)	TOC ~	S	2WM	OUT
X04179D	24 MP-6 (4-6)	TOC ~	S	2WM	OUT
X04180A	24 MP-16 (4-6)	TOC(% MOISTURE)	S	2WM	OUT

Page 3 of 3 Pages
Project #_95-0820

R=Sample to be returned

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

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CLIENI SAMPLE DATE IDENTIFICATION SAMPLED	TIME No. of C	Water-U	ios (lios	ouis / iio	TCLP VI (circle) VOA 826	/20 VIII	Pesticial Pesticial	Herbicid	08 X3T)12 HART)8 HAVT	10	S GITCIE S	Dissolve	101				EAL Sample No.	**************************************
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CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

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Please PRINT			ischarge/Gr		WesvHetb/N	24.2 (circle) ircle)	508 (circle) 608/508 (cir	515 (circle)	201M(9bii	- 25.976	(Gassoline)	- ABORN /	is pelow) - DM / SME - Delow)				EAL	0830
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gvergreen Analytical Bampie Racelpt/Check-in Recold
Date & Time Rec'd: 3/14/95 1000 Shipped Via: Fedex 45 al about (Airbill # if applicable)
client: Harsons ED
Client Project ID(s): 722450.27020
EAL Project #(s):95- Ond EAL Cooler(s): (Y) N
Cooler# 10Cl
Ice packs (Y) N Y N Y N Y N 5
Temperature ℃ 100
1. Custody seal(s) present: Seals on cooler intact Seals on bottle intact
2. Chain of Custody present:
3. Containers broken or leaking: (Comment on COC if Y)
4. Containers labeled:
5. COC agrees w/ bottles received:
6. COC agrees w/ labels: (Comment on COC if N)
7. Headspace in VOA vials-waters only (comment on COC if Y)
8. VOA samples preserved:
9. pH measured on metals, cyanide or phenolics*:
10. Metal samples present:
Total , Dissolved D or PD to be filtered:
T,TR,D,PD to be Preserved:
11. Short holding times: Specify parameters
12. Multi-phase sample(s) present:
13. COC signed w/ date/time:
Comments:
(Additional comments on back)
(Additional comments on back) Custodian Signature (Date: 1)/// (1) (1) (3)

(4)

(4)

©

CHAIN OF CUSTODY RECORD / VALYTICAL SERVICES REQUEST

COMPANY ENSINEEMING SCIENCE	A 4036 Younglield St.	CLIENT CONTACT (print) LS EL L'EMENE
ADDRESS 1700 Brandwey Sk 160	(303) 425-6021	PROJECT 1.D. 4224 50. 2 7 020
CITY THE EN STATE CO ZIP 13 021:		EAL. QUOTE # P.O.#
PHONE* 831 - 3100	FAX RESULTS Y / N	TURNAROUND REQUIRED.
Sampler Name: / /		*expedited turnaround subject to additional fer

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	EAL use only Do not write	in shaded area	EAL Project #	Custodian		EAL Sample No.		
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ノフ	1 7	No	7	nati		ŝ	87	3
ج > -	Ky Calpa	Evergreen Analytical Cooler NoCO	Please PRINT	all information:	CLIENT SAMPLE IDENTIFICATION		24 MP-1A (3'4')	24MP-18(8-9) 3-3-75 12W
(endeaders)	(print)	Evergreen Analyti Cooler Received_			O Q	IDEN	JH MP	JAMO.

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Date/Time Relinquished by: (Signature)

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13/13/12/1300

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(Signature)

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13/14/55







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CHAIN OF CUSTOUY RECORD / ANALYTICAL SERVICE: REQUEST

Page of 2

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BTEX Data Report

Client Sample Number	: 24MP-1A(3'-4')	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04173	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 5.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031811
Methanol Extract?	: No	Method Blank No.	: MB031895

	Sample				
Compound Name	Cas Number	Concentration*	PQL*		
		ug/kg	ug/kg		
Benzene	71-43-2	14 J	22		
Toluene	108-88-3	63	22		
Ethyl Benzene	100-41-4	23	22		
Total Xylene	1330-20-7	160	22		
Chlorobenzene	108-90-7	U	22		
1,3,5-trimethylbenzene	108-67-8	37	22		
1,2,4-trimethylbenzene	95-63-6	59	22		
1,2,3-trimethylbenzene	526-73-8	40	22		
1,2,3,4-tetramethylbenzene	488-23-3	20	22		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 88% QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

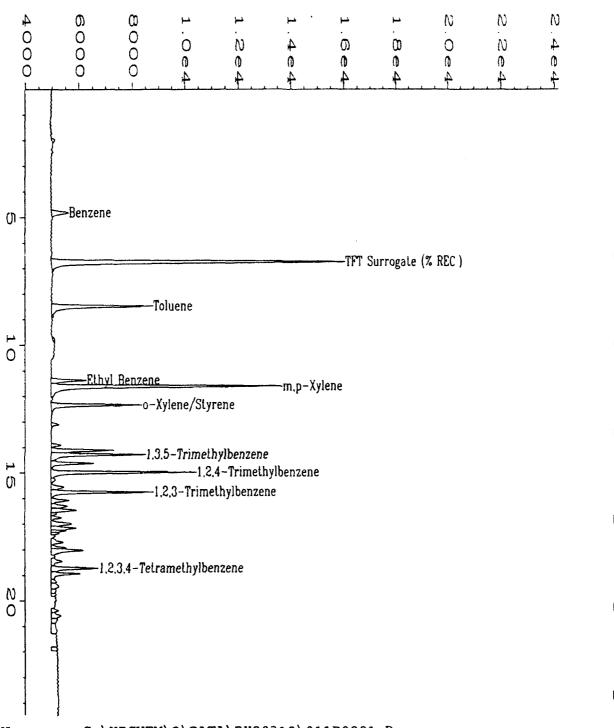
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



: C:\HPCHEM\2\DATA\BX20318\011R0801.D Data File Name Page Number : C.J. Cook Operator : BTEX2 Vial Number : 11 Instrument Sample Name Injection Number: 1 : X04173 DF=5 Run Time Bar Code: Sequence Line : 8 Acquired on Instrument Method: BX2031 : 18 Mar 95 11:24 PM Report Created on: 19 Mar 95 01:34 PM Analysis Method : BX20318.MT Last Recalib on : 18 MAR 95 11:33 PM Sample Amount Multiplier ISTD Amount Sample Info : Project#: 95-0820 Client#: 24MP-1A(3'-4') Soil

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-1B(8-9')		MacDill
Lab Sample Number	: X04174	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031722
Methanol Extract?	: No	Method Blank No.	: MB031795

		Sample	
Compound Name	Cas Number	Concentration*	PQL*
		ug/kg	ug/kg
Benzene	71-43-2	17	4.8
Toluene	108-88-3	14	4.8
Ethyl Benzene	100-41-4	12	4.8
Total Xylene	1330-20-7	16	4.8
Chlorobenzene	108-90-7	1.2 J	4.8
1,3,5-trimethylbenzene	108-67-8	5.9	4.8
1,2,4-trimethylbenzene	95-63-6	6.4	4.8
1.2,3-trimethylbenzene	526-73-8	3.4 J	4.8
1,2,3,4-tetramethylbenzene	488-23-3	38	4.8

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 82%
QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

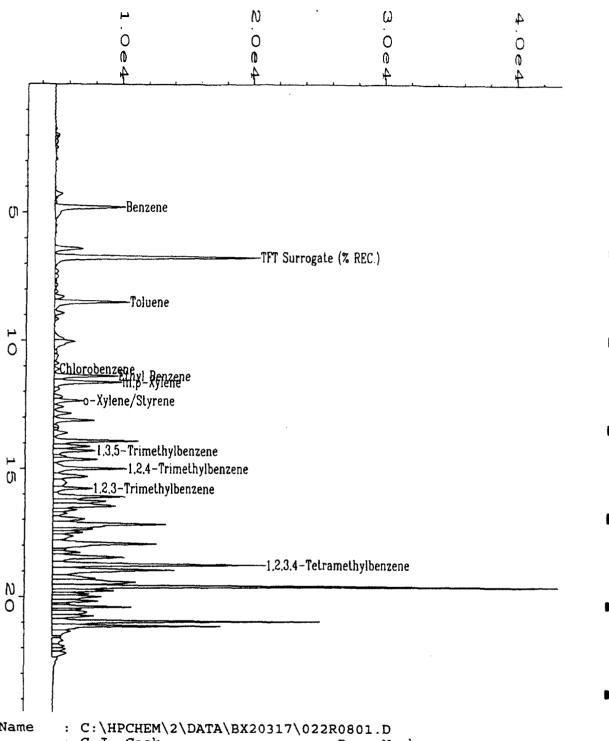
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available

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Analýst´



Data File Name Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number : 22 Sample Name : X04174 DF=1Injection Number: 1 Run Time Bar Code: Sequence Line Acquired on : 18 Mar 95 02:51 AM Instrument Method: BX203. Report Created on: 18 Mar 95 02:33 PM Analysis Method : BX20317.MT Last Recalib on : 18 MAR 95 01:39 PM Sample Amount : 0 Multiplier ISTD Amount

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BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-1B(8-9')		MacDill
Lab Sample Number	: X04174DUP	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031723
Methanol Extract?	: No	Method Blank No.	: MB031795

	Sample			
Compound Name	Cas Number	Concentration*	PQL*	
		ug/kg	ug/kg	
Benzene	71-43-2	12	4.8	
Toluene	108-88-3	12	4.8	
Ethyl Benzene	100-41-4	11	4.8	
Total Xylene	1330-20-7	16	4.8	
Chlorobenzene	108-90-7	1.4 J	4.8	
1,3,5-trimethylbenzene	108-67-8	6.1	4.8	
1,2,4-trimethylbenzene	95-63-6	6.7	4.8	
1,2,3-trimethylbenzene	526-73-8	3.6 J	4.8	
1,2,3,4-tetramethylbenzene	488-23-3	37	4.8	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

82%

QC Reporting Limits

: 64%-130%

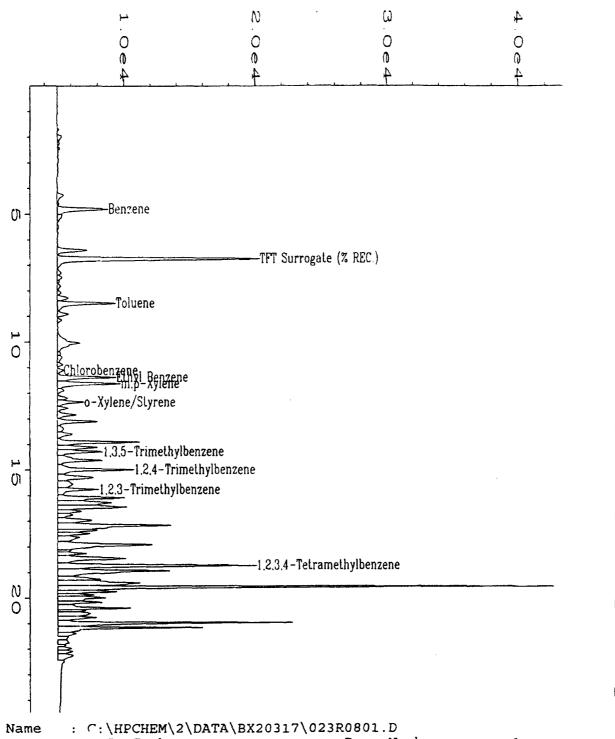
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



Data File Name Operator Page Number : \.J. Cook Vial Number : 23 Instrument : BTEX2 Injection Number: 1 Sample Name : X04174DUP DF=1Run Time Bar Code: Sequence Line Instrument Method: BX2031 Acquired on : 18 Mar 95 03:35 AM Analysis Method : BX20317.MT Report Created on: 18 Mar 95 02:34 PM Sample Amount : 18 MAR 95 01:39 PM : 0 Last Recalib on ISTD Amount Multiplier

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-2(3'-4')		MacDill
Lab Sample Number	: X04175	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 5.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/19/95	Lab File No.	: BX2031812
Methanol Extract?	: No	Method Blank No.	: MB031895

		Sample	
Compound Name	Cas Number	Concentration*	PQL*
		ug/kg	ug/kg
Benzene	71-43-2	U	24
Toluene	108-88-3	U	24
Ethyl Benzene	100-41-4	U	24
Total Xylene	1330-20-7	13 J	. 24
Chlorobenzene	108-90-7	4.2 J	24
1,3,5-trimethylbenzene	108-67-8	9.5 J	24
1,2,4-trimethylbenzene	95-63-6	6.0 J	24
1,2,3-trimethylbenzene	526-73-8	U	24
1,2,3,4-tetramethylbenzene	488-23-3	11 J	24

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 96% QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

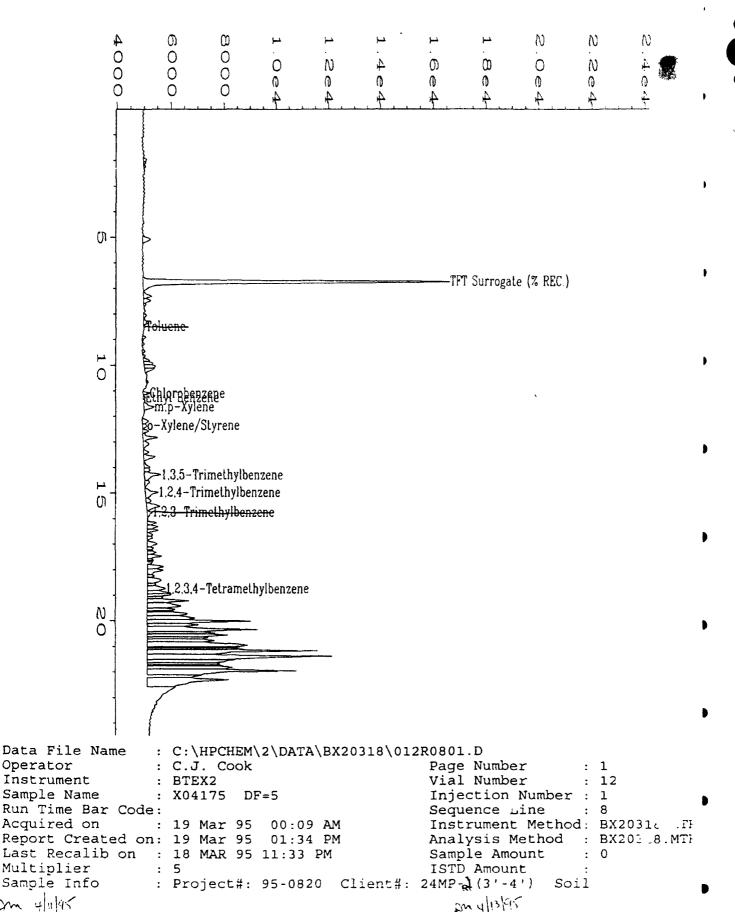
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report

Client Project No. : 722450.21020
MacDill

(4)

Lab Project No. : 95-0820
Dilution Factor : 1.00
Method : 8020
Matrix : Soil

Date Extracted/Prepared: 3/18/95Matrix: SoilDate Analyzed: 3/19/95Lab File No.: BX2031813Methanol Extract?: NoMethod Blank No.: M8031895

: 24MP-3(3-5)

: X04176

: 3/9/95

: 3/14/95

Compound Name	Oss Alverbas	Sample	2014
Compound Name	Cas Number	Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	4.7
Toluene	108-88-3	1.1 J	4.7
Ethyl Benzene	100-41-4	' U	4.7
Total Xylene	1330-20-7	2.2 J	4.7
Chlorobenzene	108-90-7	U	4.7
1,3,5-trimethy/benzene	108-67-8	U	4.7
1,2,4-trimethylbenzene	95-63-6	U	4.7
1,2,3-trimethylbenzene	526-73-8	U	4.7
1.2.3.4-tetramethylbenzene	488-23-3	{ J	47

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

Client Sample Number

Lab Sample Number

Date Sampled

Date Received

a.a,a,-Trifluorotoluene : 81%
QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

booker

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

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        Ethyp-Kylene
        o-Xylene/Styrene
        31.3.5-Trimethylbenzene
        1.2.4-Trimethylbenzene
O
        71.2.3 Trimethylbenzene
        1.2.3.4 Tetramethylbenzene
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Data File Name
                : C:\HPCHEM\2\DATA\BX20318\013R0801.D
Operator
                  : C.J. Cook
                                                   Page Number
Instrument
                  : BTEX2
                                                   Vial Number
                                                                   : 13
Sample Name
                  : X04176
                           DF=1
                                                   Injection Number: 1
Run Time Bar Code:
                                                   Sequence Line
Acquired on : 19 Mar 95 00:53 AM Report Created on: 19 Mar 95 01:35 PM
Acquired on
                                                   Instrument Method: BX2031
                                                   Analysis Method : BX20318.MT
Last Recalib on : 18 MAR 95 11:33 PM
                                                   Sample Amount
Multiplier
                                                   ISTD Amount
Sample Info
                 : Project#: 95-0820 Client#: 24MP-3(3-5) Soil
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En 4/1/95

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-4(3-5)		MacDill
Lab Sample Number	: X04177	Lab Project No.	: 95-0820
Date Sampled	: 3/9/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031726
Methanol Extract?	: No	Method Blank No.	: MB031795

	Sample					
Compound Name	Cas Number	Concent	ration*	PQL*		
		ug/kg	ug/kg			
Benzene	71-43-2		U	4.7		
Toluene	108-88-3	0.5	j	4.7		
Ethyl Benzene	100-41-4		U	4.7		
Total Xylene	1330-20-7	1.1	J	4.7		
Chlorobenzene	108-90-7		υ	4.7		
1,3,5-trimethylbenzene	108-67-8		U	4.7		
1,2,4-trimethylbenzene	95-63-6		υ	4.7		
1,2,3-trimethylbenzene	526-73-8		U	4.7		
1,2,3,4-tetramethylbenzene	488-23-3		U	4.7		

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

64%

QC Reporting Limits

: 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

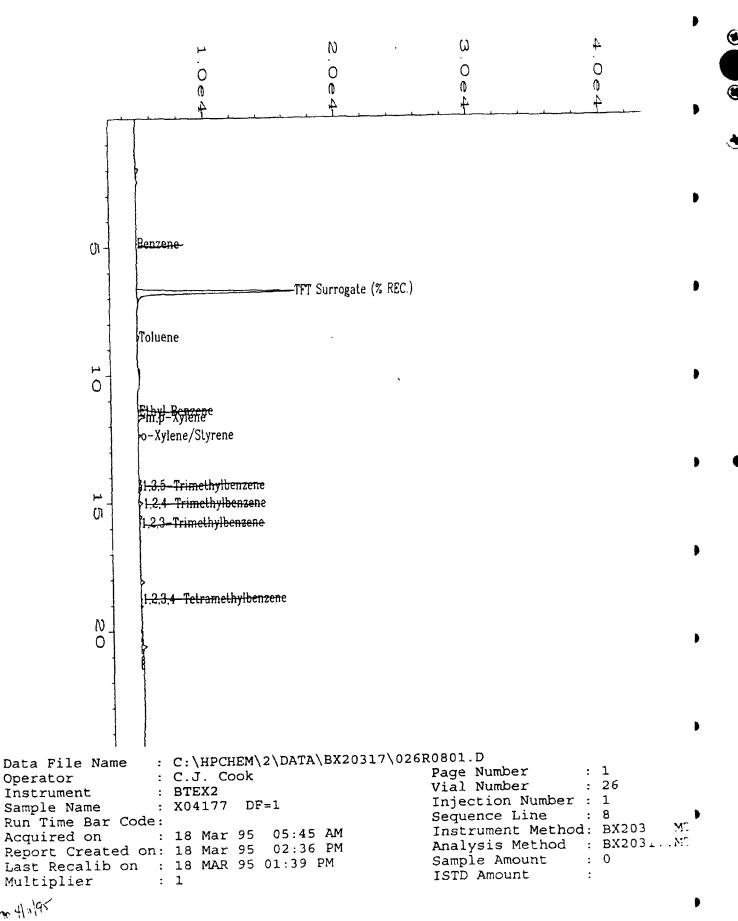
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available

Analyst 🖊



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BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-5(3-5)		MacDill
Lab Sample Number	: X04178	Lab Project No.	: 95-0820
Date Sampled	: 3/9/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031727
Methanol Extract?	: No	Method Blank No.	: MB031795

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	4.8
Toluene	108-88-3	2.3 J	4.8
Ethyl Benzene	100-41-4	U	4.8
Total Xylene	1330-20-7	U	4.8
Chlorobenzene	108-90-7	U	4.8
1,3,5-trimethylbenzene	108-67-8	U	4.8
1,2,4-trimethylbenzene	95-63-6	U	4.8
1,2,3-trimethylbenzene	526-73-8	U	4.8
1,2,3,4-tetramethylbenzene	488-23-3	U	4.8

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

74%

QC Reporting Limits

: 64%-130%

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

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O
                                            0
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                                                                                              0
        Benzene-
(h -
                                           -TFT Surrogate (% REC.)
         -Toluene
0
         o-Xylene/Styrene
         1.3.5 Trimethylbenzene
         1-2,4-Trimethylbenzene
()ì
N
```

(3)

: C:\HPCHEM\2\DATA\BX20317\027R0801.D Data File Name Page Number : C.J. Cook Operator : 27 Vial Number : BTEX2 Instrument Injection Number : 1 : X04178 DF=1 Sample Name : 8 Sequence Line Run Time Bar Code: Instrument Method: BX2031 : 18 Mar 95 06:29 AM Acquired on Analysis Method : BX2031. Report Created on: 18 Mar 95 02:36 PM Last Recalib on : 18 MAR 95 01:39 PM Sample Amount : 0 ISTD Amount Multiplier

pm 4/11/95

BTEX Data Report

Client Sample Number	: 24MP-6(4-6)	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04179	Lab Project No.	: 95-0820
Date Sampled	: 3/9/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/19/95	Lab File No.	: BX2031815
Methanol Extract?	: No	Method Blank No.	: MB031895

	Sample			
Compound Name	Cas Number	Concentration*	PQL*	
		ug/kg	ug/kg	
Benzene	71-43-2	U	4.9	
Toluene	108-88-3	U 8.0	4.9	
Ethyl Benzene	100-41-4	υ	4.9	
Total Xylene	1330-20-7	U	4.9	
Chlorobenzene	108-90-7	U	4.9	
1,3,5-trimethylbenzene	108-67-8	U	4.9	
1,2,4-trimethylbenzene	95-63-6	υ	4.9	
1,2,3-trimethylbenzene	526-73-8	U	4.9	
1,2,3,4-tetramethylbenzene	488-23-3	U	4.9	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a.a.a,-Trifluorotoluene

96%

QC Reporting Limits

: 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

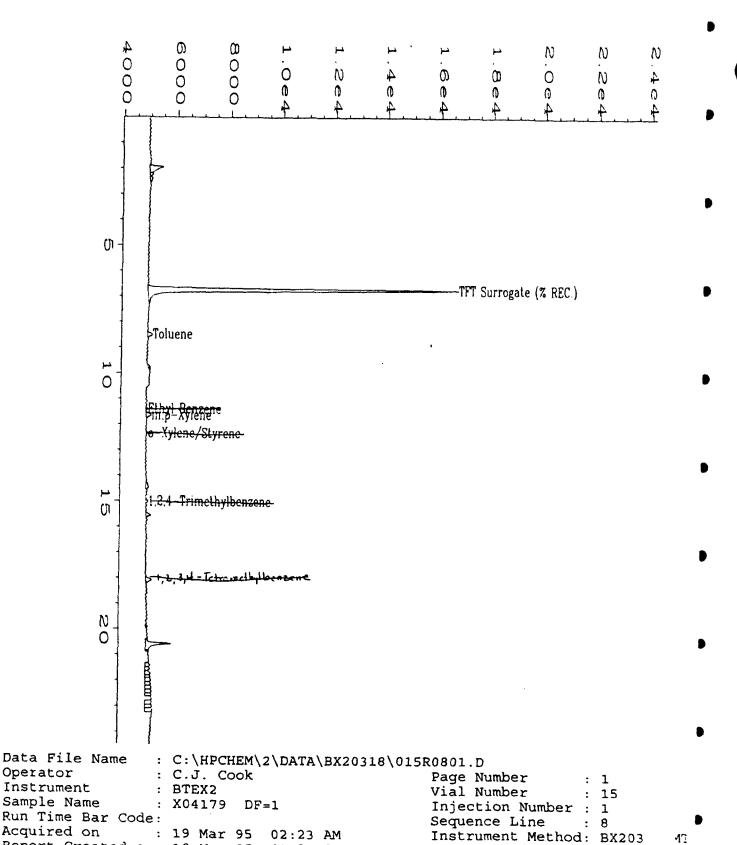
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available!

net /



Report Created on: 19 Mar 95 01:35 PM Analysis Method : BX20318.M7 Last Recalib on : 18 MAR 95 11:33 PM Sample Amount Multiplier ISTD Amount Sample Info

: Project#: 95-0820 Client#: 24MP-6(4-6)

DM 4/1/95

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24\$\$-1(4-6)		MacDill
Lab Sample Number	: X04181	Lab Project No.	: 95-0820
Date Sampled	: 3/10/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/18/95	Lab File No.	: BX2031729
Methanol Extract?	: No	Method Blank No.	: MB031795

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	4.8
Toluene	108-88-3	2.9 J	4.8
Ethyl Benzene	100-41-4	U	4.8
Total Xylene	1330-20-7	2.6 J	4.8
Chlorobenzene	108-90-7	U	4.8
1,3,5-trimethylbenzene	108-67-8	0.5 J	4.8
1,2,4-trimethylbenzene	95-63-6	υ	4.8
1,2,3-trimethylbenzene	526-73-8	U	4.8
1,2,3,4-tetramethylbenzene	488-23-3	42	4.8

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

76%

QC Reporting Limits

: 64%-130%

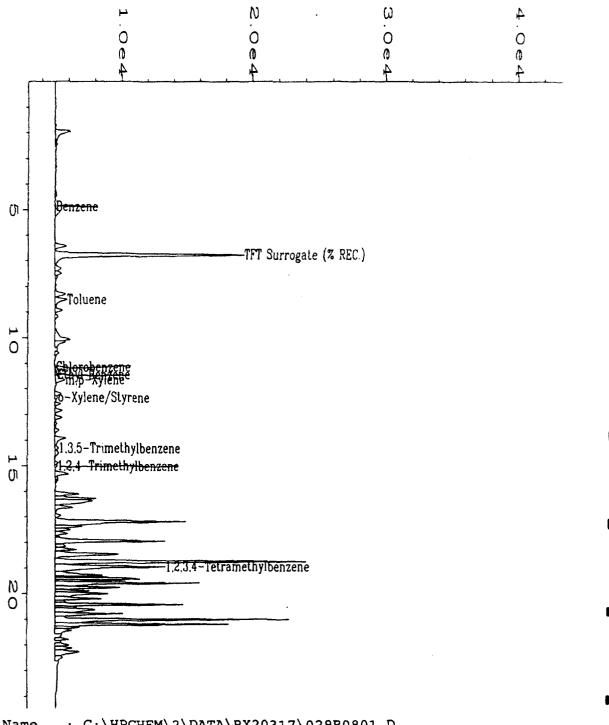
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available

Analys?



Data File Name : C:\HPCHEM\2\DATA\BX20317\029R0801.D Operator : C.J. Cook Page Number Vial Number Instrument : BTEX2 : 29 Sample Name : X04181 DF=1 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Acquired on : 18 Mar 95 07:56 AM Instrument Method: BX203 Report Created on: 18 Mar 95 02:37 PM Analysis Method : BX203_ Last Recalib on : 18 MAR 95 01:39 PM Sample Amount : 0 Multiplier ISTD Amount pm 4/11/95

BTEX Data Report

Client Sample Number	: 24SS-2(4-6)	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04182	Lab Project No.	: 95-0820
Date Sampled	: 3/10/95	Dilution Factor	: 5.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/18/95	Matrix	: Soil
Date Analyzed	: 3/19/95	Lab File No.	: BX2031820
Methanol Extract?	: No	Method Blank No.	: MB031895

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg	
Benzene	71-43-2	U	23	
Toluene	108-88-3	12 J	23	
Ethyl Benzene	100-41-4	37	23	
Total Xylene	1330-20-7	170	23	
Chlorobenzene	108-90-7	27	23	
1,3,5-trimethylbenzene	108-67-8	150	23	
1,2.4-trimethylbenzene	95-63-6	140	23	
1,2,3-trimethylbenzene	526-73-8	200	23	
1,2,3,4-tetramethylbenzene	488-23-3	850 E	23	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample results & PQLs are reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 91% QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

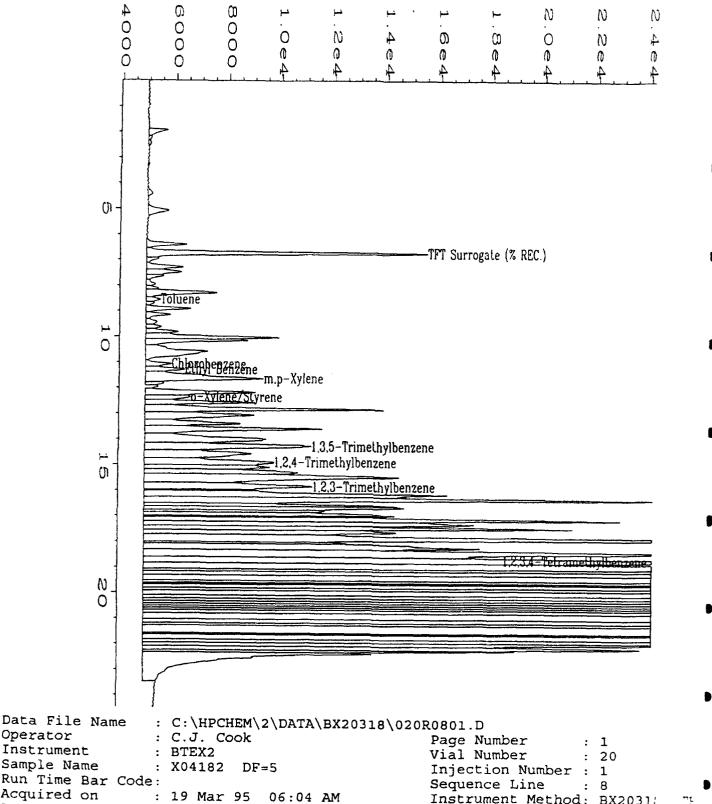
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection/Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not available

Approved



Acquired on Instrument Method: BX2031: Report Created on: 19 Mar 95 01:37 PM Analysis Method : BX20318.ATF Last Recalib on : 18 MAR 95 11:33 PM Sample Amount Multiplier ISTD Amount Sample Info : Project#: 95-0820 Client#: 24SS-2(4-6) Soil

Operator

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021





: 24 MP-1A(3'-4')

Client Project No.

: 722450.21020/MAC DI

Lab Sample No.

: X04173

Lab Project No.

: 95-0820

Date Sampled

: 3/8/95

EPA Method No.

: 5030/8015 Mod : Water

Date Received Date Prepared

: 3/14/95

Matrix Method Blank

Date Analyzed

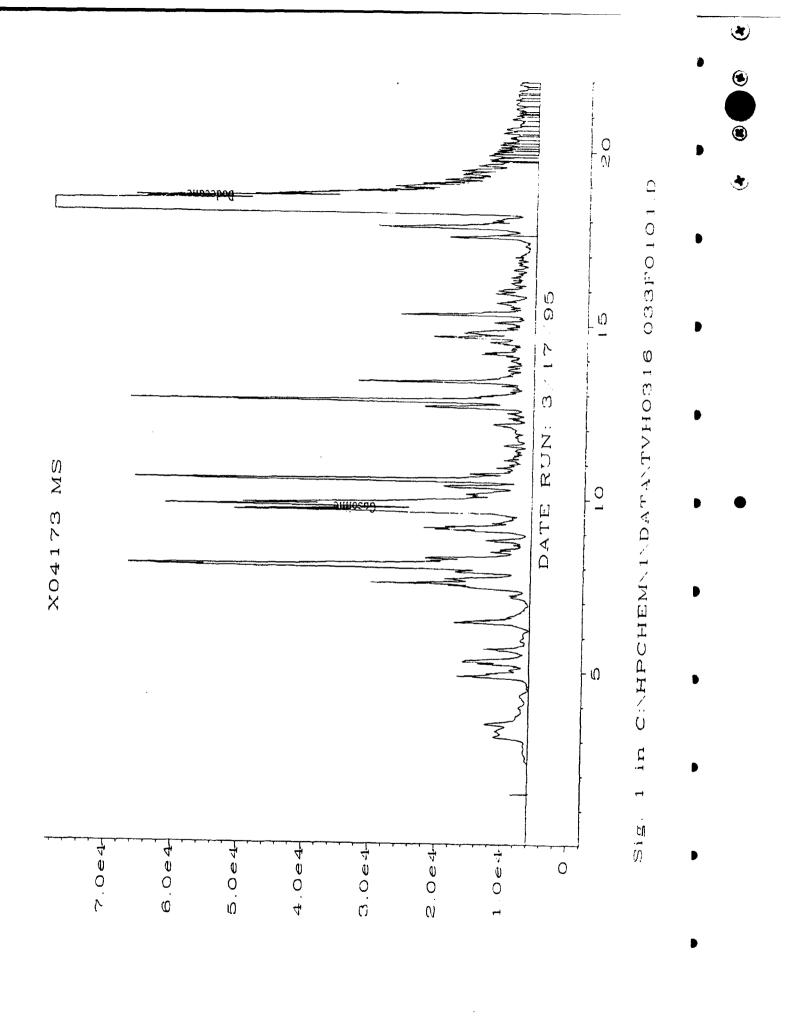
: 3/16/95,3/17/95 : 3/16/95,3/17/95

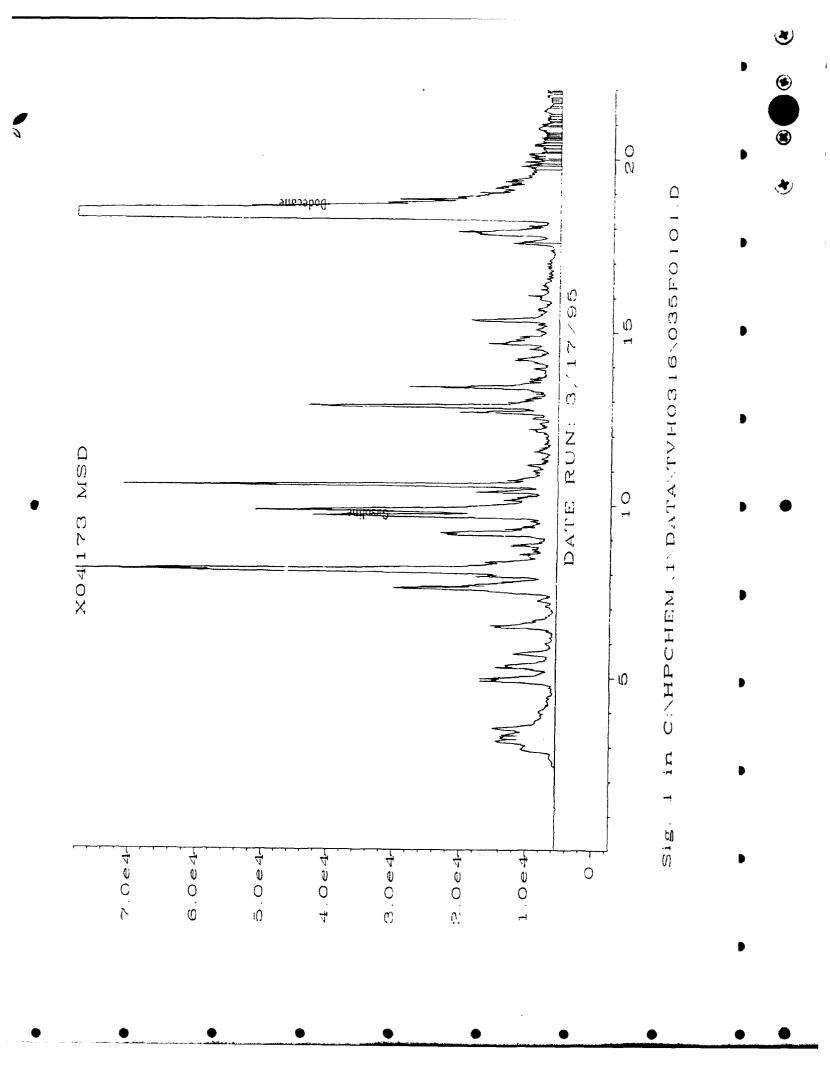
: MB031695

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	5.00	0.00	6.51	130	60-140

	Spike	MSD			C)C
Compound	Added	Concentration	MSD	RPD	Lir	nits
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	5.00	6.01	120	8.0	50	60-140

*= Values outside of QC limits.						
RPD:	O out of (1) outside limits.					
Spike Recovery:	O out of (2) outside limits.					
Comments:	NA = Not analyzed/not applicable.					





Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS TEH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: 24MP-7(2-4)

Client Project No.

: 722450.21020/MAC E

Lab Sample No.

: X04163

Lab Project No. EPA Method No.

: 95-0819 : 3500/MOD.8015

Date Sampled **Date Received** : 3/10/95 : 3/14/95

Matrix

: SOIL

Date Prepared

: 3/17/95

Method Blank

: SB031795

Date Analyzed : 3/18/95

	Spike	Sample	MS		αc
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/mL)	(ug/mL)	(ug/L)	%REC	%REC
Jet Fuel	1000	0	910	91	60-140

	Spike	MSD			(2C
Compound	Added	Concentration	MSD	RPD	Li	mits
	(ug/mL)	(ug/mL)	%REC		RPD	%REC
Jet Fuel	1000	930	93	2.2	50	60-140

#	=	Values	outside	of OC	limite
	_	y alues	outside	u uu	muna.

RPD:

out of (1) outside limits.

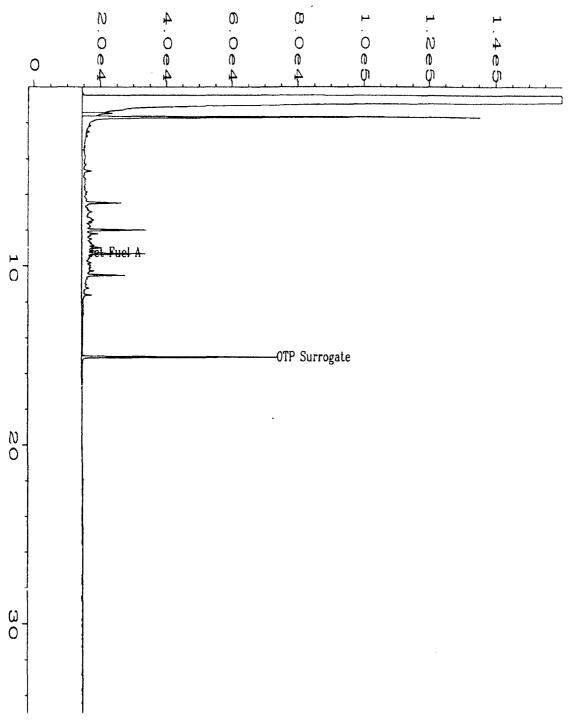
Spike Recovery:

out of (1) outside limits.

Comments:

NA = Not analyzed/not applicable.

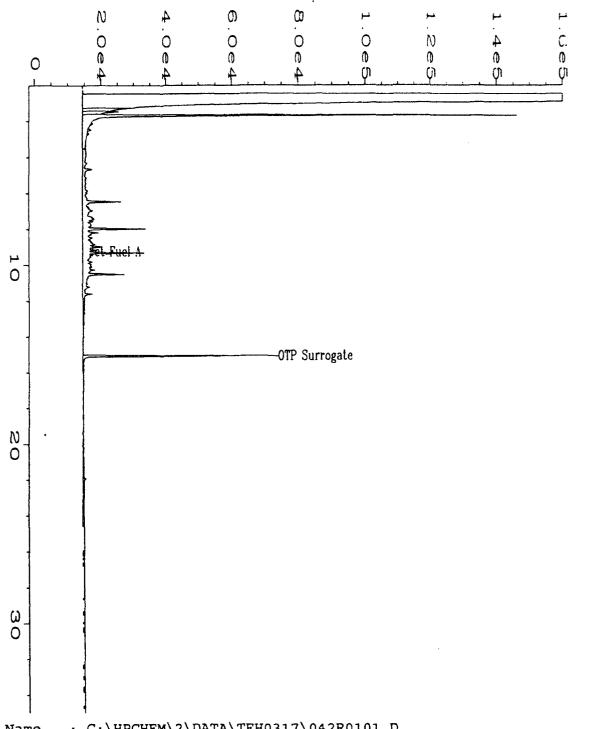
Values reported in ug/mL in the liquid extract.



Data File Name : C:\HPCHEM\2\DATA\TEH0317\043R0101.D Operator : Dawn N. Guildner Page Number Instrument : TEH Vial Number Sample Name : X04163 MSD Injection Number: 1 n Time Bar Code: Sequence Line : 1 : 19 Mar 95 squired on Instrument Method: FID1BASE.MTH 00:04 AM

Report Created on: 11 Apr 95 12:24 PM Analysis Method : JET0317.MTH : 0

Last Recalib on : 21 MAR 95 09:48 AM Sample Amount Multiplier ISTD Amount



: C:\HPCHEM\2\DATA\TEH0317\042R0101.D Data File Name : 1 : Dawn N. Guildner Page Number Operator Vial Number : TEH Instrument Injection Number: 1 : X01463 MS Sample Name Sequence Line : 1 Run Time Bar Code: Instrument Method: FID1BASE.M' : 18 Mar 95 Acquired on Analysis Method : JET0317.MT Report Created on: 11 Apr 95 12:24 PM

Last Recalib on : 21 MAR 95 09:48 AM Sample Amount : 0 Multiplier : 1 ISTD Amount :

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

Client Project No.

: 722450.21020

Client Sample No.

: 24MP-6(4-6)

MacDill

Lab Sample No. Date Sampled

: X04179

Lab Project No.

: 95-0820

Date Received

: 3/9/95 : 3/14/95

EPA Method No. Matrix

: 8020 : Soil

Date Prepared Date Analyzed : 3/18/95 : 3/19/95

Lab File Number(s)

: BX2031816

Method Blank : MB031895

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20.0	0.0	15	74	65-121
Toluene	20.0	0.8	15	69	69-117
Ethyl Benzene	20.0	0.0	14	71	68-118
m,p-Xylene	40.0	0.0	29	72	66-116
o-Xylene	20.0	0.0	14	70	73-117
Chlorobenzene	20.0	0.0	14	70	65-121
1,3,5-TMB	20.0	0.0	13	63 °	65-121
1,2,4-TMB	20.0	0.0	12	60*	65-121
1,2,3-TMB	20.0	0.0	11	54*	65-121
1,2,3,4-TeMB	20.0	0.0	7.5	38*	65-121

	Spike	MSD			_	C
Compound	Added	Concentration	MS	RPD	Lir	mits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20.0	NA	NA	NA	17.4	65-121
Toluene	20.0	NA	NA	NA	15.8	69-117
Ethyl Benzene	20.0	NA	NA	NA	11.9	68-118
m,p-Xylene	40.0	NA	NA	NA	15.4	66-116
o-Xylene	20.0	NA	NA	NA	13.2	73-117
Chlorobenzene	20.0	NA	NA	NA	17.4	65-121
1,3,5-TMB	20.0	NA	NA	NA	17.4	65-121
1,2,4-TMB	20.0	NA	NA	NA	17.4	65-121
1,2,3-TMB	20.0	NA	NA	NA	17.4	65-121
1,2,3,4-TeMB	20.0	NA	NA	NA	17.4	65-121

* _	Values	outside of	OC limite	cee	665	03187	5
* =	Values	outside of	OC limits	حدو	600	6318	•

RPD:

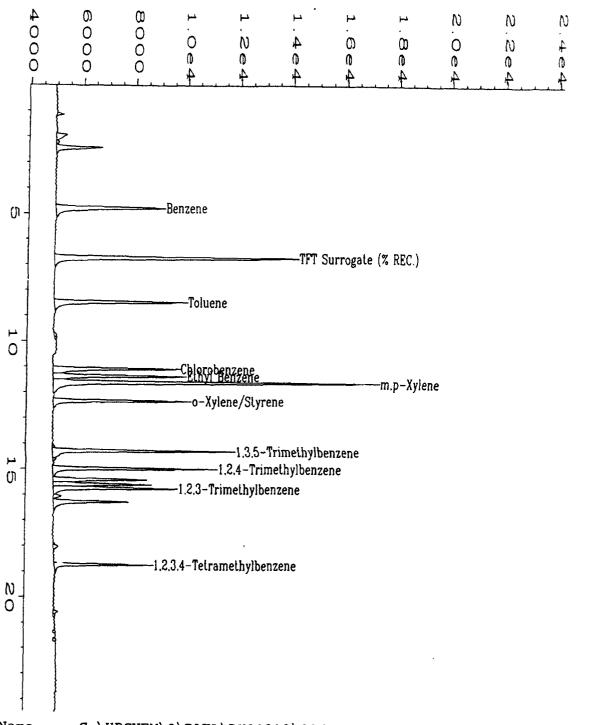
out of (10) outside limits.

Spike Recovery:

out of (10) outside limits.

Comments:

MSD on this sample did not purge.



Data File Name : C:\HPCHEM\2\DATA\BX20318\016R0801.D Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number : 16 Sample Name X04179MS DF=1 Injection Number : 1 Run Time Bar Code: Sequence Line Acquired on : 19 Mar 95 03:07 AM Instrument Method: BX2031& .F. Report Created on: 19 Mar 95 01:36 PM Analysis Method : BX20318.MT Last Recalib on : 18 MAR 95 11:33 PM Sample Amount : 0 Multiplier : 1 ISTD Amount Sample Info : Project#: 95-0820 Client#: 24MP-6(4-6) Soil

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Trip Blank		MacDill
Lab Sample Number	: X04187	Lab Project No.	: 95-0820
Date Sampled	: 3/8/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Water
Date Analyzed	: 3/18/95	Lab File No.	: BX2031720
Methanol Extract?	· No	Method Blank No	· MR031795

	Sample						
Compound Name	Cas Number	Concentration	PQL				
		ug/L	ug/L				
Benzene	71-43-2	U	4.0				
Toluene	108-88-3	U	4.0				
Ethyl Benzene	100-41-4	U	4.0				
Total Xylene	1330-20-7	U	4.0				
Chlorobenzene	108-90-7	U	4.0				
1,3,5-trimethylbenzene	108-67-8	υ	4.0				
1,2,4-trimethylbenzene	95-63-6	U	4.0				
1,2,3-trimethylbenzene	526-73-8	U	4.0				
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0				

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 74% QC Reporting Limits : 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

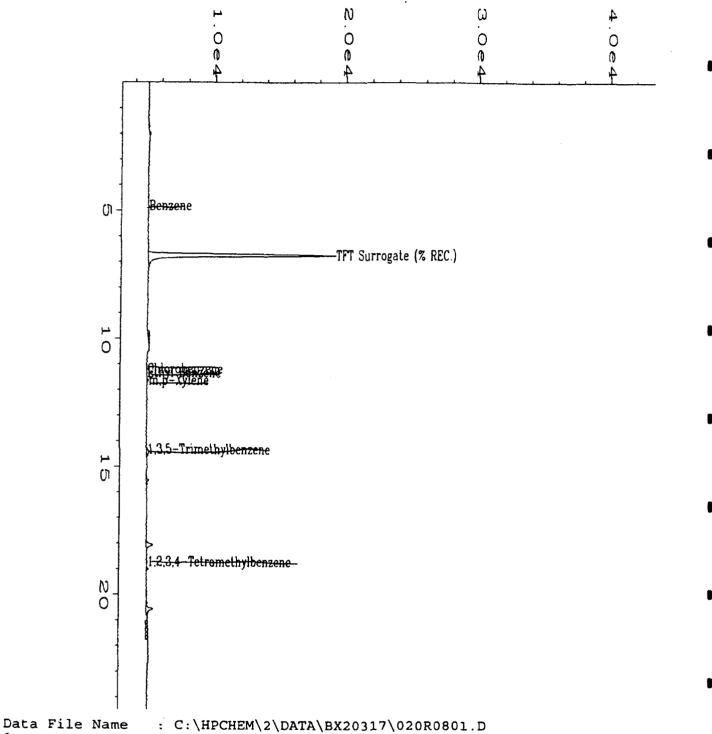
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not averiable

Approved



Operator : C.J. Cook Page Number Instrument : 20 : BTEX2 Vial Number Sample Name : X04187 DF=1 Injection Number : 1 Run Time Bar Code: Sequence Line Acquired on : 18 Mar 95 01:25 AM Instrument Method: BX20317.arF Report Created on: 18 Mar 95 02:31 PM Analysis Method : BX20317.MTE Last Recalib on : 18 MAR 95 01:39 PM Sample Amount Multiplier ISTD Amount

m 4/11/95

BTEX Data Report Method Blank Report

Method Blank Number

: MB031795

: 722450.21020

Lab Project No.

Client Project No.

MacDill : 95-0820

Date Extracted/Prepared Date Analyzed

: 3/17/95 : 3/17/94

Dilution Factor

: 1.00

Method

: 8020

Matrix

: Water

Lab File No.

: BX2031709

	Sample						
Compound Name	Cas Number	-Concentration ug/L	PQL ug/L				
Benzene	71-43-2	U	4.0				
Toluene	108-88-3	U	4.0				
Ethyl Benzene	100-41-4	U	4.0				
Total Xylene	1330-20-7	U	4.0				
Chlorobenzene	108-90-7	U	4.0				
1,3,5-trimethylbenzene	108-67-8	υ	4.0				
1,2,4-trimethylbenzene	95-63-6	U	4.0				
1,2,3-trimethylbenzene	526-73-8	U	4.0				
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0				

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

90%

QC Reporting Limits

: 70%-130%

QUALIFIERS:

E = Extrapolated value

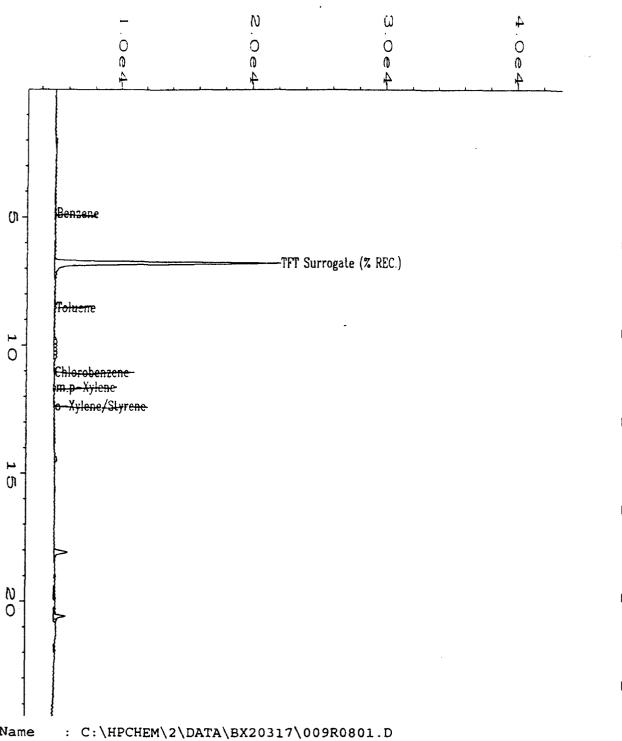
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not available



Data File Name Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number Sample Name : MB031795-WATER Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Acquired on : 17 Mar 95 05:27 PM Instrument Method: BX20317.MLH Report Created on: 17 Mar 95 05:52 PM Analysis Method : BX20317.MTH Last Recalib on : 17 Mar 95 04:23 PM Sample Amount : 0 Multiplier ISTD Amount

im 4/11/95

BTEX Data Report Method Blank Report

Method Blank Number

: MB031895

Client Project No.

: 722450.21020

Date Extracted/Prepared

: 3/18/95

Lab Project No.

MacDill : 95-0820

Date Analyzed

: 3/19/94

Dilution Factor

: 1.00

Method

: 8020

Matrix

: Water

Lab File No.

: BX2031822

	Sample					
Compound Name	Cas Number	Concentration	PQL ug/L			
		ug/L				
Benzene	71-43-2	U	4.0			
Toluene	108-88-3	υ	4.0			
Ethyl Benzene	100-41-4	U	4.0			
Total Xylene	1330-20-7	U	4.0			
Chlorobenzene	108-90-7	U	4.0			
1,3,5-trimethylbenzene	108-67-8	U	4.0			
1,2,4-trimethylbenzene	95-63-6	U	4.0			
1,2,3-trimethylbenzene	526-73-8	U	4.0			
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0			

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

81%

QC Reporting Limits

: 70%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

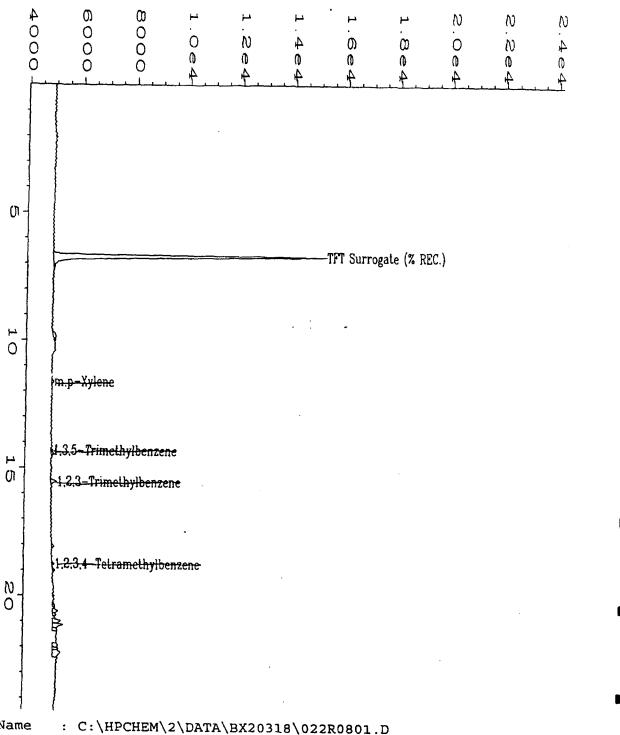
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20318\022R0801.D Operator : C.J. Cook Page Number : 1 Instrument Vial Number : BTEX2 : 22 Sample Name : MB031895-WATER Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Acquired on : 19 Mar 95 07:33 AM Instrument Method: BX20318 Report Created on: 19 Mar 95 01:38 PM Analysis Method : BX20318.MTH Last Recalib on : 18 MAR 95 11:33 PM Sample Amount : 0 Multiplier ISTD Amount

pm 4/0/95

BTEX Data Report Method Blank Report

Method Blank Number : MB031995

Client Project No.

: 722450.21020

Date Extracted/Prepared

Date Analyzed

: 3/19/95 : 3/20/94 Lab Project No.

MacDill : 95-0820

Dilution Factor : 1.00 Method : 8020

Matrix

: Water

Lab File No.

: BX2031914

	Sample						
Compound Name	Cas Number	Concentration	PQL				
		ug/L	ug/L				
Benzene	71-43-2	U	4.0				
Toluene	108-88-3	U	4.0				
Ethyl Benzene	100-41-4	U	4.0				
Total Xylene	1330-20-7	U	4.0				
Chlorobenzene	108-90-7	U	4.0				
1,3,5-trimethylbenzene	108-67-8	U	4.0				
1,2,4-trimethylbenzene	95-63-6	U	4.0				
1,2,3-trimethylbenzene	526-73-8	U	4.0				
1.2.3.4-tetramethylbenzene	488-23-3	U	4.0				

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

88%

QC Reporting Limits

: 70%-131%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

alvet ____

Approved

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                                                 -TFT Surrogate (% REC.)
            0
                   m.p-Xylene-
            \boldsymbol{\mu}
                       Trimethylbenzene-
            O
                   1.2.3.4-Tetramethylbenzene
            NO
O
                    : C:\HPCHEM\2\DATA\BX20319\014R1101.D
Data File Name
                                                         Page Number
                    : C.J. Cook
                                                         Vial Number
Instrument
                    : BTEX2
Sample Name
                                                         Injection Number: 1
                    : MEB031995
                                                         Sequence Line
                                                                             : 11
Run Time Bar Code:
                                                         Instrument Method: BX20319....'H
                   : 20 Mar 95
                                    01:30 AM
Acquired on
                                    01:55 AM
                                                         Analysis Method : BX20319.MTH
Report Created on: 20 Mar 95
                                                         Sample Amount
Last Recalib on : 19 Mar 95
                                    10:59 PM
```

ISTD Amount

2m 4/1/95

Multiplier

Operator

BTEX Data Report Method Blank Report

Method Blank Number

: MEB032095

Client Project No.

: 722450.21020

: 3/20/95

Lab Project No.

MacDill : 95-0820

Date Extracted/Prepared Date Analyzed

: 3/20/94

Dilution Factor

: 1.00

Method

: 8020 Matrix : MeOH

Lab File No.

: BX2032013

Sample

	Sample						
Compound Name	Cas Number	Concentration	PQL				
		ug/L	ug/L				
Benzene	71-43-2	U	4				
Toluene	108-88-3	U	4				
Ethyl Benzene	100-41-4	υ	4				
Total Xylene	1330-20-7	U	4				
Chlorobenzene	108-90-7	U	4				
1,3,5-trimethylbenzene	108-67-8	U	4				
1,2,4-trimethylbenzene	95-63-6	U	4				
1,2,3-trimethylbenzene	526-73-8	υ	4				
1,2,3,4-tetramethylbenzene	488-23-3	U	4				

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

103%

QC Reporting Limits

: 70%-131%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

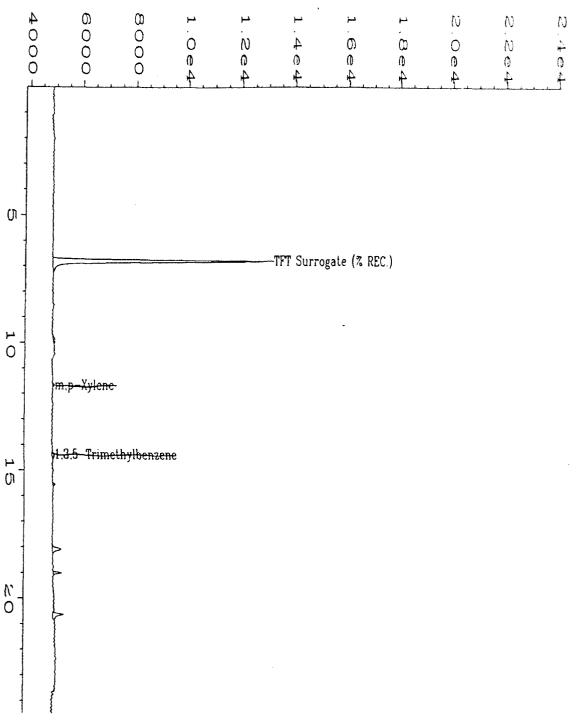
B = Compound found in blank and sample. Compare blank and sample data.

J = indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Defection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



```
Data File Name
                : C:\HPCHEM\2\DATA\BX20320\013R1001.D
Operator
                : C.J. Cook
                                               Page Number
                                                           : 13
                                               Vial Number
Instrument
                : BTEX2
Sample Name
                : MEB032095
                                               Injection Number : 1
Run Time Bar Code:
                                               Sequence Line : 10
Acquired on
              : 20 Mar 95
                            09:53 PM
                                               Instrument Method: BX20320....
Report Created on: 20 Mar 95
                             10:19 PM
                                               Analysis Method : BX20320.MTH
Last Recalib on : 20 Mar 95
                            06:26 PM
                                               Sample Amount
Multiplier
                                               ISTD Amount
```

BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

Method Blank Number

: MB032095

MacDill

Date Extracted/Prepared

: 3/20/95

Lab Project No.

: 95-0820

Date Analyzed

: 3/20/94

Dilution Factor

: 1.00

Method Matrix

: 8020 : Water

Lab File No.

: BX2032011

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L	
Benzene	71-43-2	U	4.0	
Toluene	108-88-3	U	4.0	
Ethyl Benzene	100-41-4	U	4.0	
Total Xylene	1330-20-7	ប	4.0	
Chlorobenzene	108-90-7	U	4.0	
1,3,5-trimethylbenzene	108-67-8	U	4.0	
1,2,4-trimethylbenzene	95-63-6	U	4.0	
1,2,3-trimethylbenzene	526-73-8	U	4.0	
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

102%

QC Reporting Limits

: 70%-130%

QUALIFIERS:

E = Extrapolated value

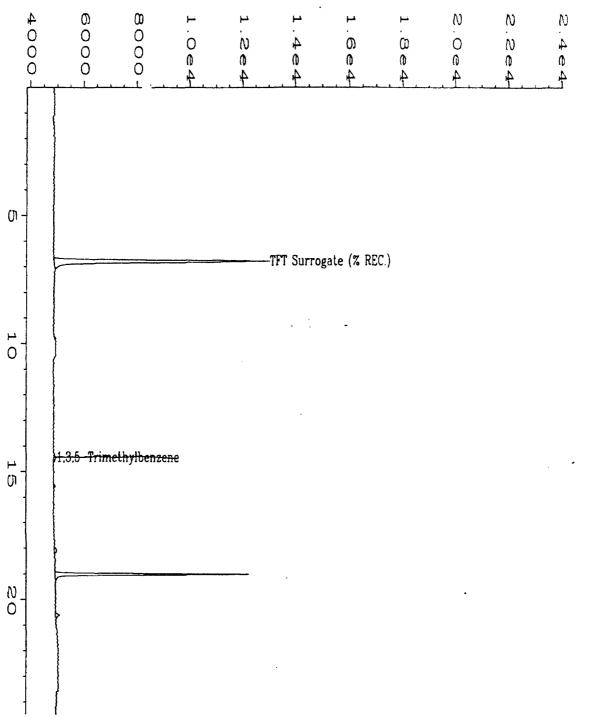
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



Data File Name : C:\HPCHEM\2\DATA\BX20320\011R1001.D : C.J. Cook Operator Page Number : 1 Vial Number Instrument : 11 : BTEX2 Injection Number : 1 Sample Name : MB032095-WATER Run Time Bar Code: Sequence Line : 10 Acquired on Instrument Method: BX20320. Mid : 20 Mar 95 08:20 PM Report Created on: 20 Mar 95 08:45 PM Analysis Method : BX20320.MTH Last Recalib on : 20 Mar 95 06:26 PM Sample Amount Multiplier ISTD Amount

pm 4/13/85

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number
Date Extracted/Prepared

: LCS031895 : 3/18/95 Dilution Factor Method : 1.00 : 602

Date Analyzed

Spike Amount (ug/L)

: 3/18/95 : 3/18/95 : 40.0

Matrix Lab File No.

: Water : BX20318010

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	36.0	90.0%	37.5%-110.0%
Toluene	108-88-3	34.7	86.8%	65.0%-107.5%
Ethyl Benzene	100-41-4	35.5	88.8%	65.0%-120.0%
m,p-Xylene	NA	36.2	90.5%	62.5%-117.5%
o-Xylene	95-47-6	34.1	85.3%	65.0%-120.0%
Chlorobenzene	108-90-7	35.2	88.0%	70.0%-115.0%
1,3,5-trimethylbenzene	108-67-8	35.9	89.8%	60.0%-117.5%
1,2,4-trimethylbenzene	95-63-6	30.5	76.3%	57.5%-115.0%
1,2,3-trimethylbenzene	526-73-8	34.3	85.8%	72.5%-122.5%
1,2,3,4-tetramethylbenzene	488-23-3	34.6	86.5%	50.0%-150%
Surrogate Recovery (α,α,α-Trifluorotoluene):		95%	70%-1309	6 (QC limits)

QUALIFIERS:

E = Extrapolated value

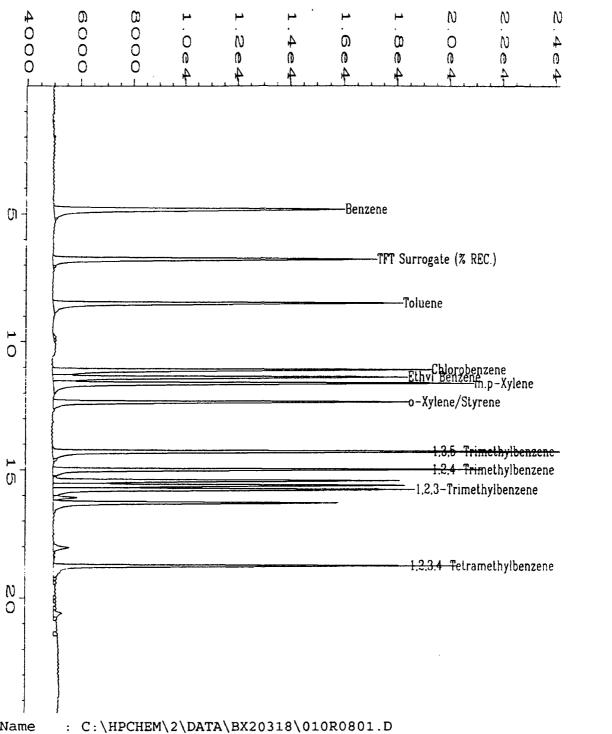
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

NA = Not available/Not analyzed

Analyst



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Data File Name Operator : C.J. Cook Page Number Instrument Vial Number : BTEX2 : 10 Sample Name : LCS031895 Injection Number: 1 Run Time Bar Code: : 8 Sequence Line : 18 Mar 95 10:39 PM Acquired on Instrument Method: BX20318 Report Created on: 04 Apr 95 04:19 AM Analysis Method : BX20318.MTF Last Recalib on : 18 MAR 95 11:33 PM Sample Amount : 0 Multiplier ISTD Amount

External Standard Report

File Name : C:\HPCHEM\2\DATA\BX20317\008R0801.D

Crerator Page Number : C.J. Cook Instrument :_BTEX2 Vial Number Injection Number: 1 Sample Name : 1.0 ppb BTEX MIX

Run Time Bar Code: Sequence Line : 8

Instrument Method: BX20317.MTH Acquired on : 17 Mar 95 04:43 PM Report Created on: 18 Mar 95 02:05 PM Analysis Method : BX20317.MTH

Last Recalib on : 18 MAR 95 01:39 PM Sample Amount : 0 : 1 ISTD Amount Multiplier

Sig. 2 in C:\HPCHEM\2\DATA\BX20317\008R0801.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
2.466	1156	PV	0.076	1	0.497	
4.867	2629	VV	0.095	1	2.632	Benzene
6.789	108107	VV	0.105	1-R	81.851	TFT Surrogate (% REC.)
8.526	3772	VV	0.118	1	2.374	Toluene
11.158	2728	VV	0.119	1	2.707	Chlorobenzene
11.410	3157	VV	0.113	1	1.591	Ethyl Benzene
11.654	6815	VV	0.104	1	1.054	m,p-Xylene
12.379	2809	PV	0.094	1	1.931	o-Xylene/Styrene
. 316	3508	VV	0.074	1	0.778	1,3,5-Trimethylbenzene
٥.007	7245	VV	0.090	1	0.801	1,2,4-Trimethylbenzene
15.455	1974	vv	0.091	1	1.830	
15.569	803	vv	0.060	1	0.735	
15.781	6531	VV	0.093	1	-1.117	1,2,3-Trimethylbenzene
16.325	1656	VV	0.082	1	0.832	
18.759	1996	VV	0.069	1	0.576	1,2,3,4-Tetramethylbenzene

Time Reference Peak Expected RT Actual RT Difference 3 6.804 6.789 -0.015

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                                          0
                 Benzene
           (n -
                                            -TFT Surrogate (% REC.)
                 .
Toluene
           0
                 o-Xylene/Styrene
                 -1.3.5-Trimethylbenzene
                 -1.2.4-Trimethylbenzene
           O
                 ►1.2.3-Trimethylbenzene
                 1.2.3.4-Tetramethylbenzene
           N
           0
ata File Name
                  : C:\HPCHEM\2\DATA\BX20317\008R0801.D
                  : C.J. Cook
                                                      Page Number
nstrument
                                                      Vial Number
                  : BTEX2
ample Name
                  : 1.0 ppb BTEX MIX
                                                      Injection Number: 1
un Time Bar Code:
                                                      Sequence Line
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cquired on
                  : 17 Mar 95
                                 04:43 PM
                                                      Instrument Method: BX20317.MTH
eport Created on: 17 Mar 95
                                 05:08 PM
                                                      Analysis Method : BX20317.MTH
ast Recalib on
                 : 17 Mar 95
                                 04:23 PM
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ultiplier
                                                      ISTD Amount
```

1,2,3 & 1,2,4-Trimethylbenzene

perator

ample Info

: STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); +

Time Reference Peak Expected RT Actual RT Difference 6.750 6.713 -0.037

Not all calibrated peaks were found

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        >o-Xylene/Styrene /
       1.3.5-Trimethylbenzene
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         -1.2.4-Trimethylbenzene <
O
           -1,2,3-Trimethylbenzene 🔎
                                               4 pc
        -1.2.3.4-Tetramethylbenzene
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Data File Name
                 : C:\HPCHEM\2\DATA\BX20318\018R0801.D
Operator
                 : C.J. Cook
                                                 Page Number
Instrument
                 : BTEX2
                                                 Vial Number
                                                 Injection Number: 1
Sample Name
                 : 1.0 ppb BTEX MIX
                                                 Sequence Line
Run Time Bar Code:
Acquired on
                 : 19 Mar 95
                               04:36 AM
                                                 Instrument Method: BX20318.
Report Created on: 19 Mar 95
                               01:36 PM
                                                 Analysis Method : BX20318.MTH
Last Recalib on
                 : 18 MAR 95 11:33 PM
                                                 Sample Amount
                                                                   : 0
Multiplier
                                                 ISTD Amount
Sample Info
                 : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); +
                   1,2,3 & 1,2,4-Trimethylbenzene
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Not all calibrated peaks were found

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                  Benzene/
            Ø
                                                 -TFT Surrogate (% REC.)
                  ⊳Toluene ✓
                  ⊳o-Xylene/Styrene /
                  ▶1,3,5-Trimethylbenzene <
                   -1,2,4-Trimethylbenzene
            O
                   1,2,3-Trimethylbenzene
                  ≥1.2.3.4-Tetramethylbenzene ✓
            N
Dama File Name
                    : C:\HPCHEM\2\DATA\BX20320\010R1001.D
                    : C.J. Cook
                                                         Page Number
    rument
                    : BTEX2
                                                         Vial Number
                                                                             : 10
                                                         Injection Number : 1
     'e Name
                    : 1.0 ppb BTEX MIX
     'ime Ba: Code:
                                                         Sequence Line
                                                                             : 10
     red on
                      20 Mar 95
                                                         Instrument Method: BX20320....
                                   07:34 PM
      t Crea ed on:
                      20 Mar 95
                                   07:59 PM
                                                         Analysis Method
                                                                            : BX20320.MTH
      Recali > on
                   : 20 Mar 95
                                   06:26 PM
                                                         Sample Amount
                                                                             : 0
      plier
                                                         ISTD Amount
      e Info
                    : STD REF #1644, 3/10/95, 0.5 UG/ML (M & P-XYLENE PRESENT); +
```

1,2,3 & 1,2,4-Trimethylbenzene

OF

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Ru:

Acc

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Sam

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Date Sampled

: 3/8,9,10,13/95

Client Project Number

: 722450.21020/MAC DILL

Date Received

: 3/14/95

Lab Project Number

: 95-0820

Date Prepared

: 3/16,17,22,24/95

Matrix

: Soil

Date Analyzed

: 3/16,17,22,24/95

Method Number

: 5030/Mod.8015

Evergreen	Client	Surrogate	TVH+	RL*
Sample #	Sample #	Recovery	mg/Kg	mg/Kg
MB031695	METHOD BLANK	100%	U	0.10
MB032295	METHOD BLANK	100%	υ	0.10
MBC32395	METHOD BLANK	90%	U	0.10
X04173	24 MP-1A(3'-4') /	116%	U	0.11
X04174	24 MP-1B(8'-9') 🗸	118%	1.1	0.12
X04175	24 MP-2(3'-4')~	115%	U	0.12
X04176	24 MP-3 (3-5) (112%	0.36	0.12
X04177	24-MP-4 (3-5) /	115%	U	0.12
X04178	24 MP-5 (3-5) /	113%	U	0.12
X04179	24 MP-6 (4-6)	114%	U	0.12
X04181	24SS-1 (4-6) √	120%	4.7	0.1
X04182	24SS-2 (4-6)	118%	3.0	0.1
X04183	75SS-1 (3-5)	108%	230	6.0
X04183 DUP	75SS-1 (3-5)	113%	590	6.0
X04184	75SS-1 (7-9)	101%	0.36	0.12
X04185	75SS-2 (3-5)	128%	4800E	5.7
X04186	7588-2 (9-11)	101%	U	0.12
X04186 DUP	75SS-2 (9-11)	116%	0.41	0.12

QUALIFIERS

U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

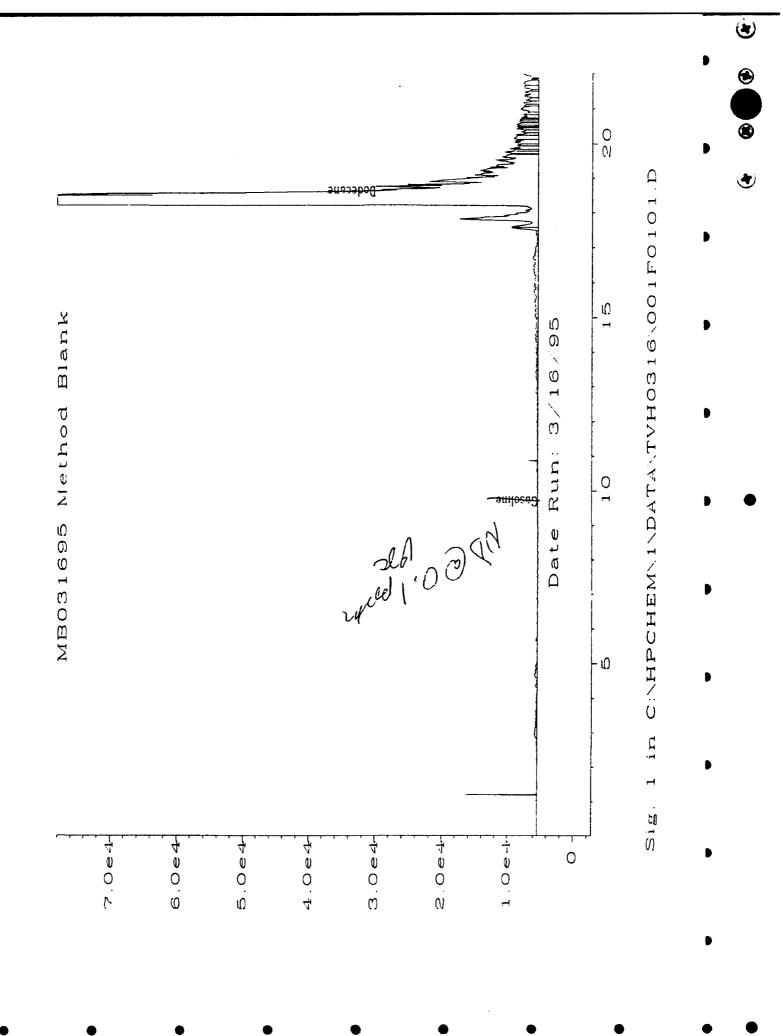
E = Extrapolated value.

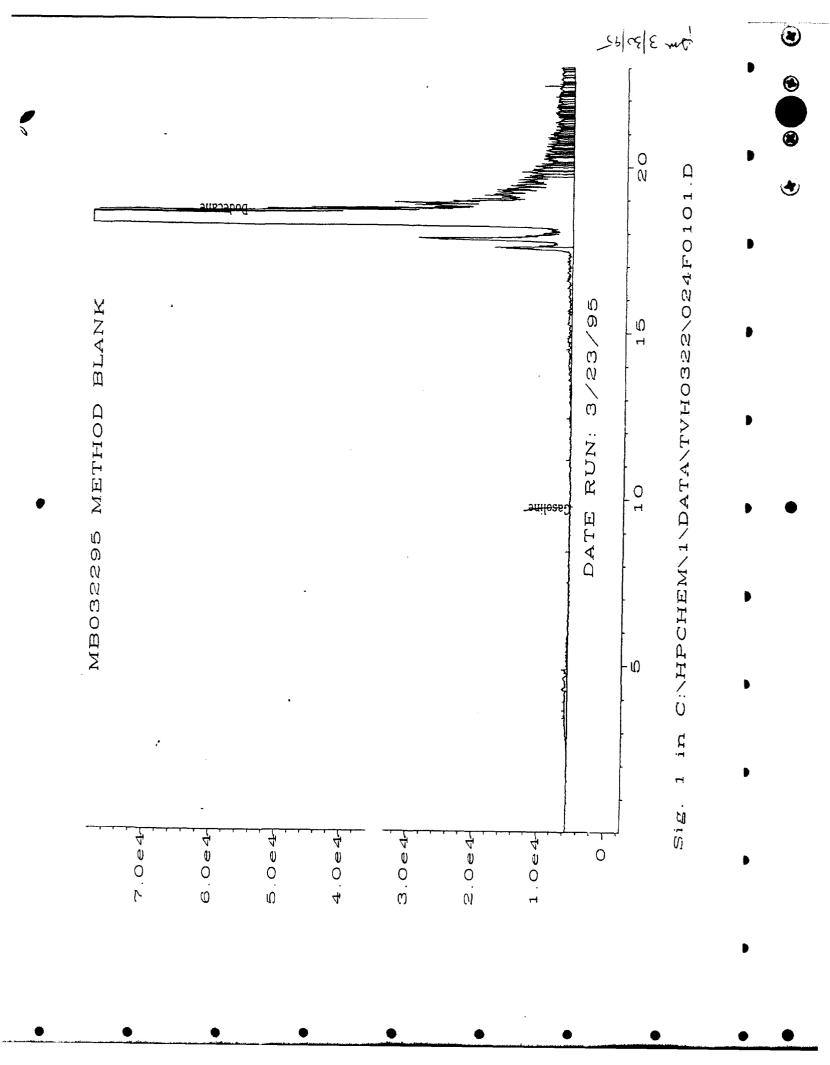
RL = Reporting Limit

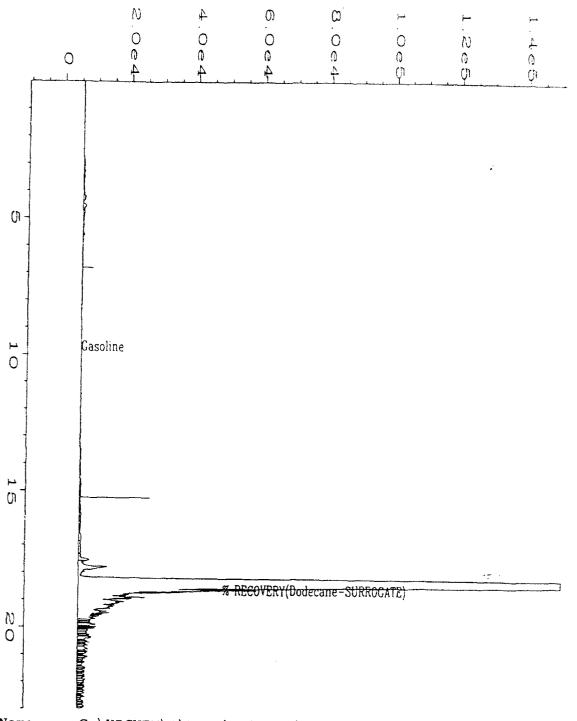
* = Based on dry weight.

Analyst

Approved

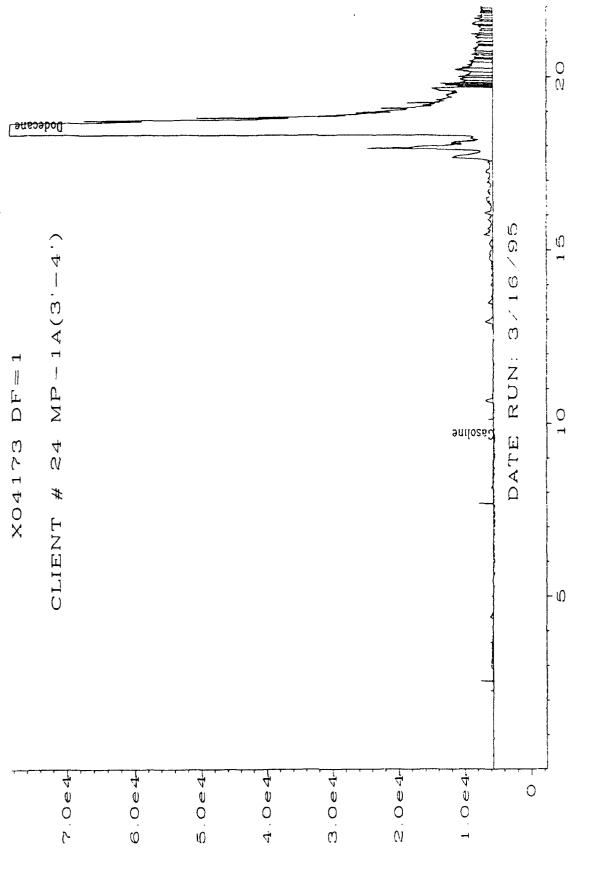






ata File Name : C:\HPCHEM\1\DATA\tvh0323\001F0101.D perator : Dawn N. Guildner Page Number : 1 istrument : TVH Vial Number : 1 umple Name Injection Number: 1 Sequence Line : 1 : MB032395 in Time Bar Code: :quired on : 23 Mar 95 05:56 PM Instrument Method: TVH0323.MT.. eport Created on: 23 Mar 95 06:20 PM Analysis Method : TVH0323.MTH ist Recalib on : 23 MAR 95 12:18 PM Sample Amount :ltiplier ISTD Amount

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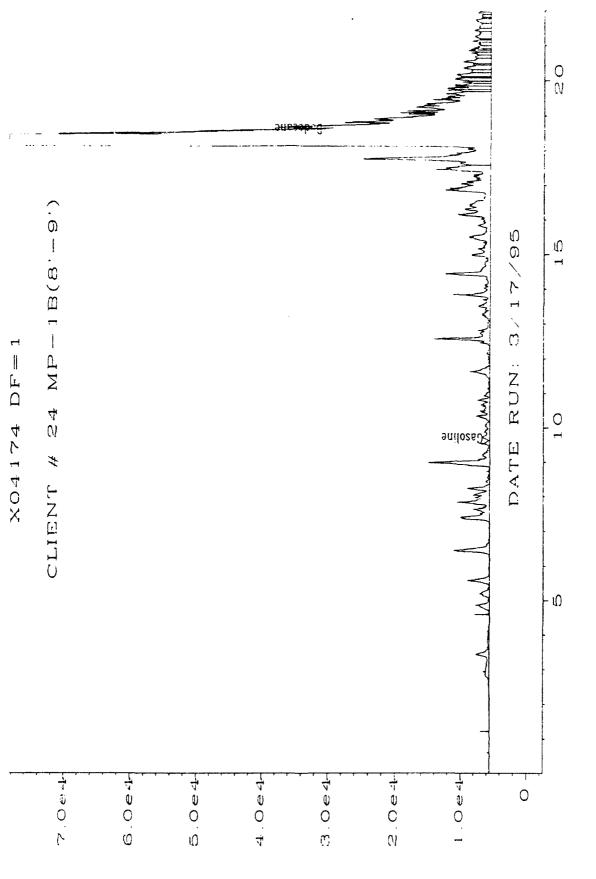
CIMPCHEM 1NDATALTVH03165009F0101.D ï

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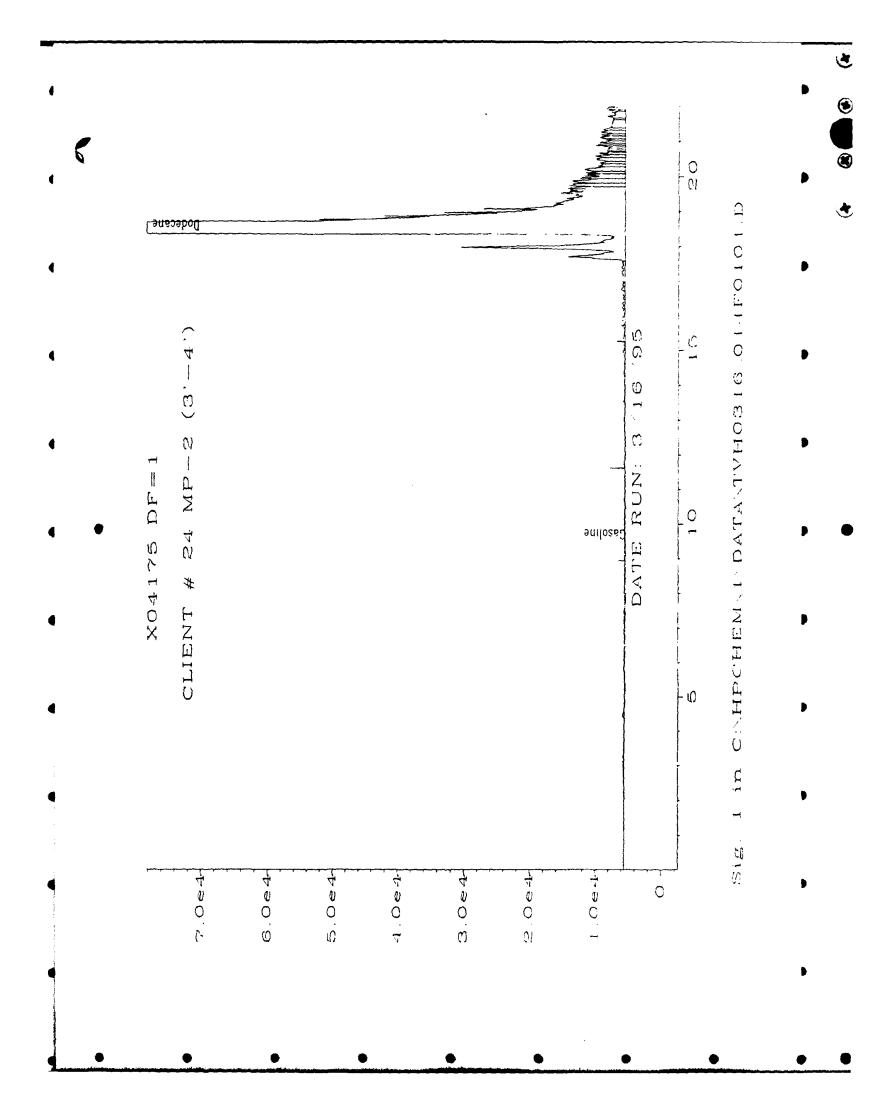


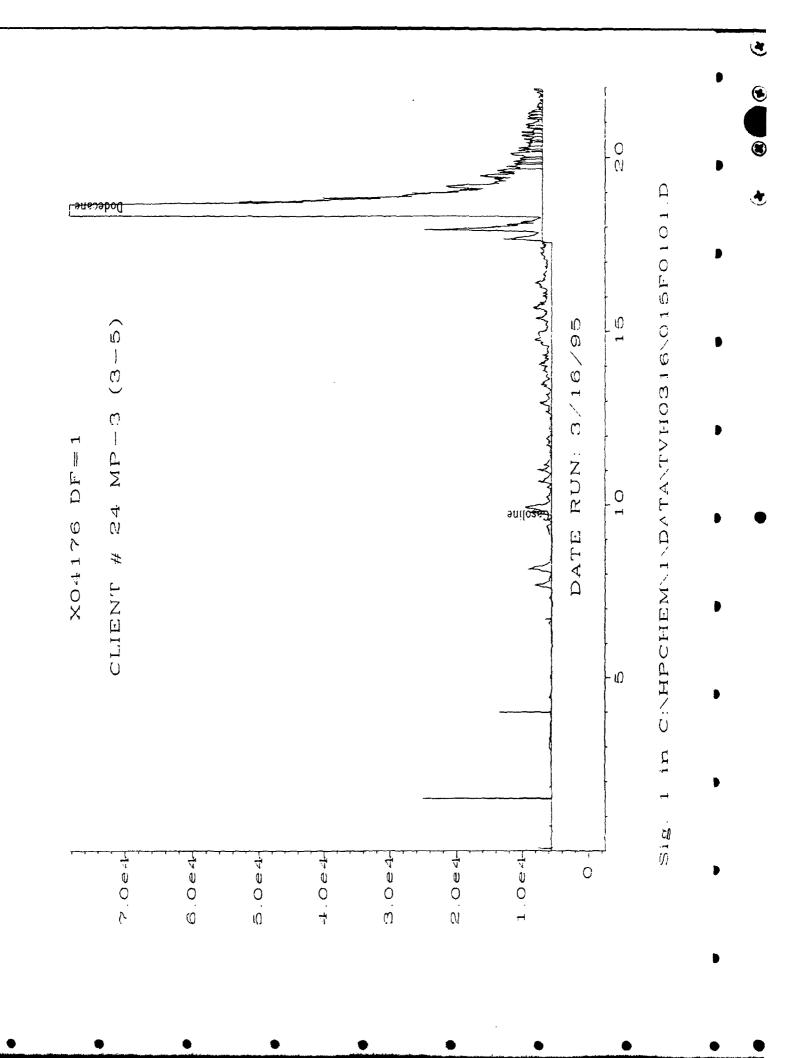
C:\HPCHEM\1\DATA\TVH0316\028F0J01\D пi Sig.

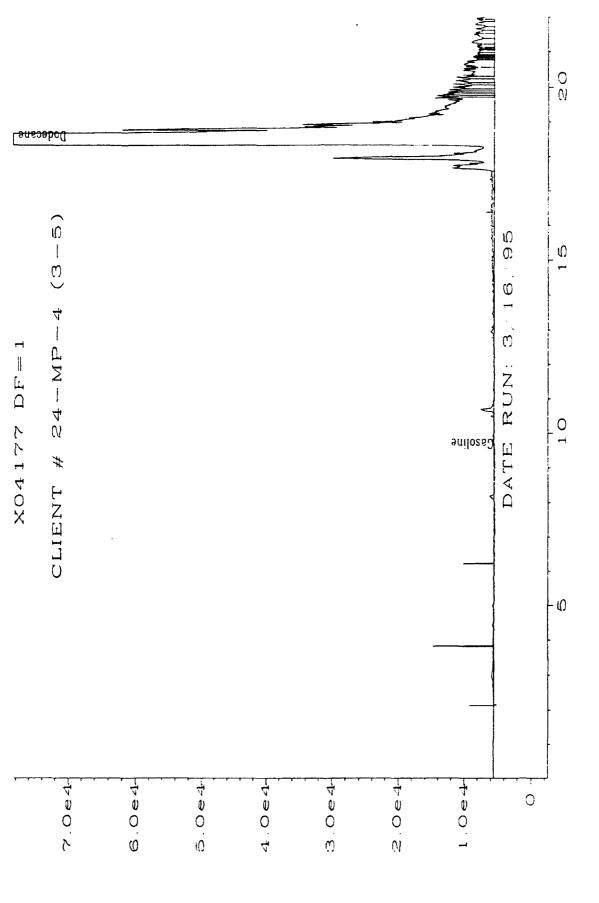
(4)

(3)

8







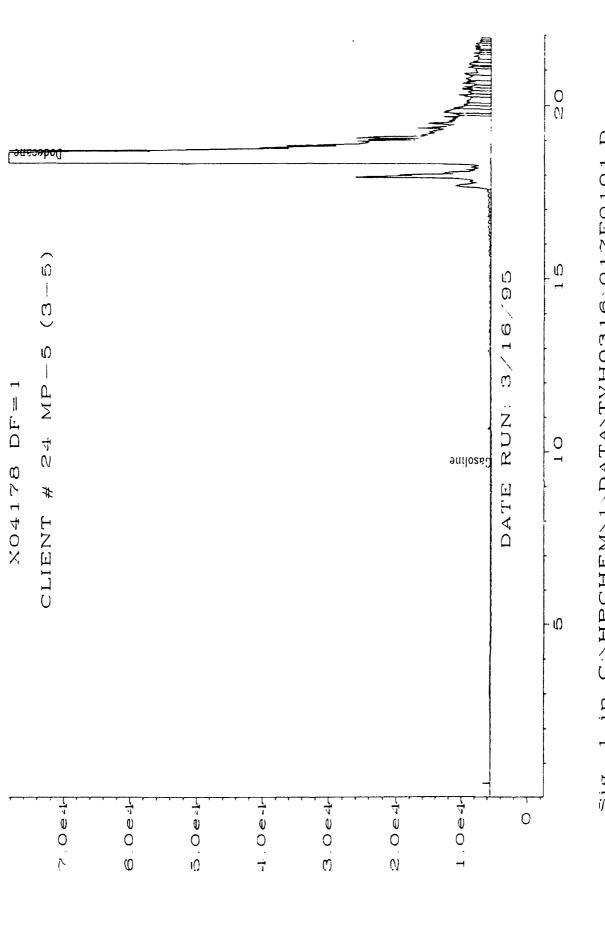
C:\HPCHEM\1\DATA\TVH0316\016F0101.D ri Sis

(3)

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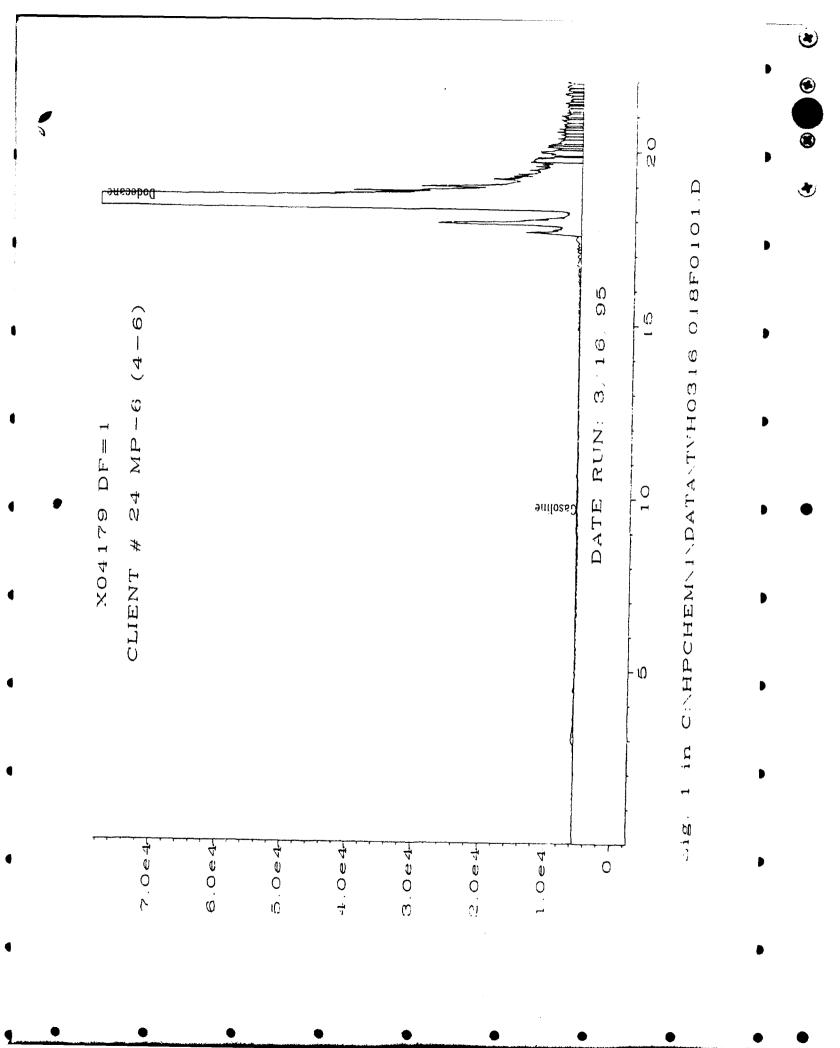
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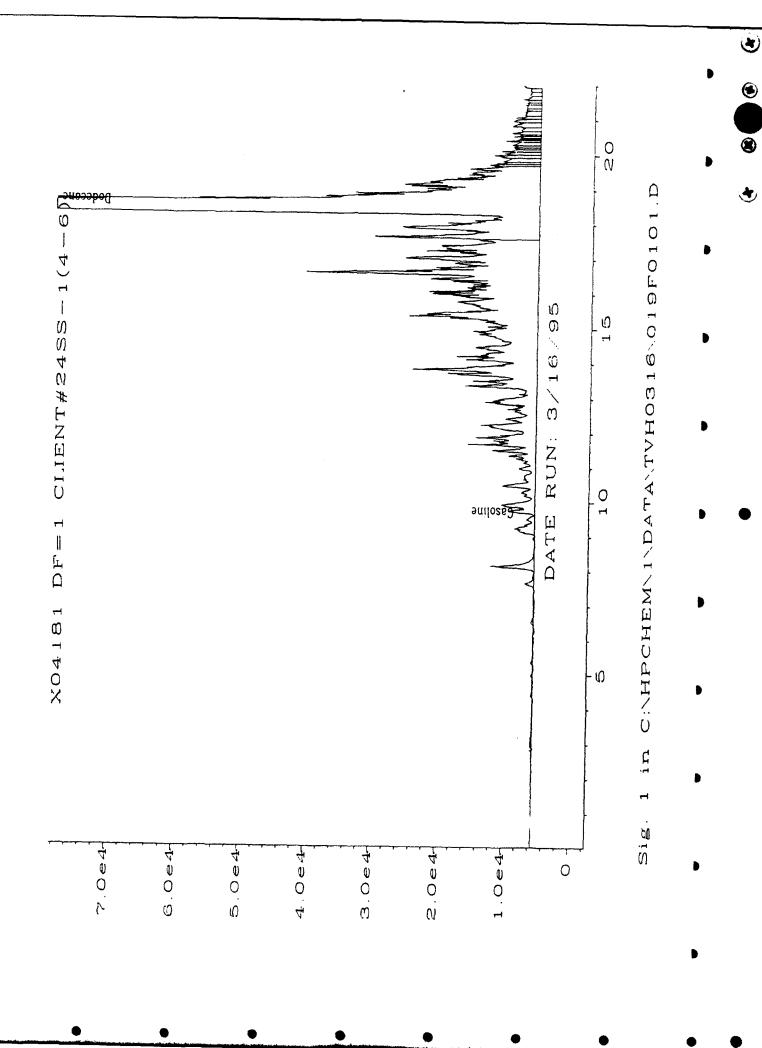
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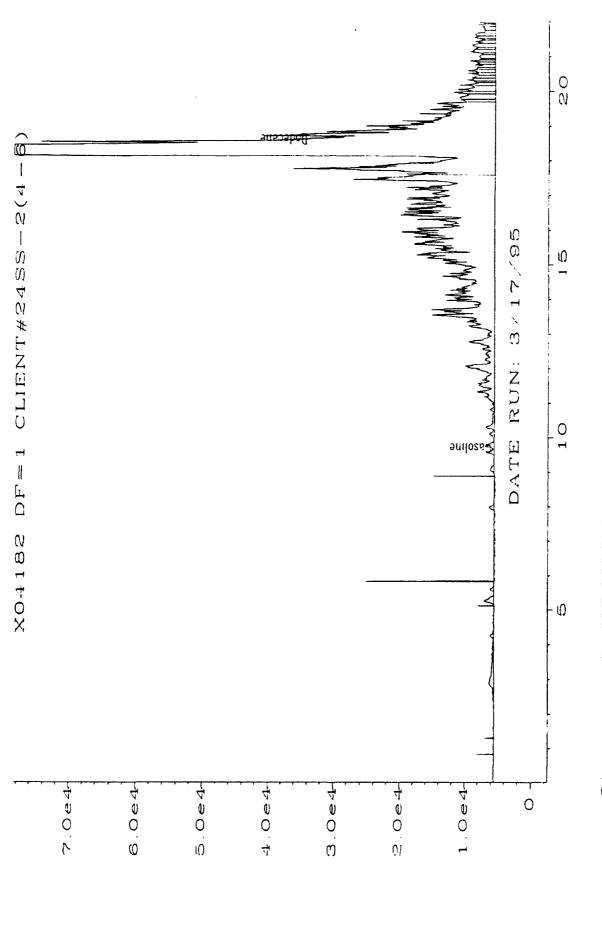


in C:\HPCHEM\1\DATA\TVH0316\017F0101.D Sig. 1

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C:\HPCHEM\1\DATA\TVH0316\029F0101.D 1 in Sig.

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TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Nur :ber

: LCS031695

Client Project Number

: 722450.21020/MACDILL AFB

Date Prepared

: 3/16/95

Lab Project Number

: 95-0820

Date Analyzed

: 3/16/95

Matrix

: SOIL

Sequence Number

: TVH12

Method Number

: 5030/8015 MOD.

		LCS	
ompound Name	Theoretical Concentration mg/L	Concentration mg/ L	QC Limit mg/L
Gasoline	5.00	6.21	3.5-6.5

QUALIFI! 3S

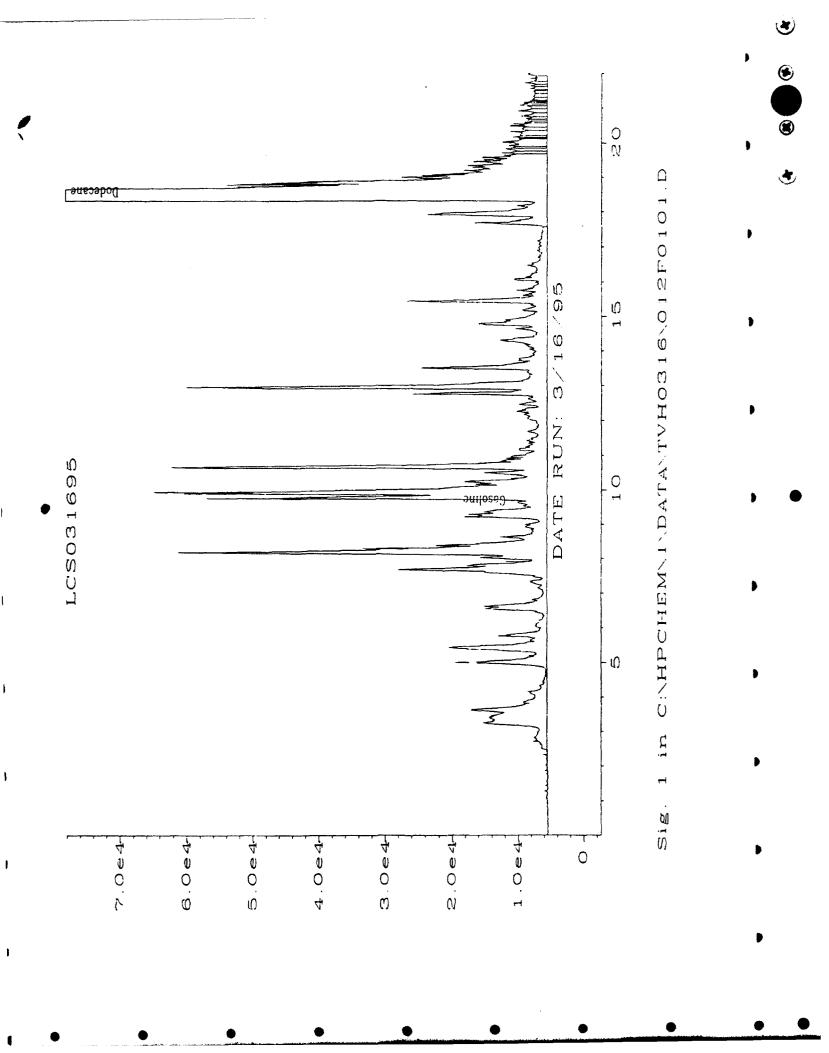
U = TEF analyzed for but not detected.

B = TEF found in blank as well as sample (blank data should be compared).

E = Ext: appliated value.

NA = Nc Available.

Approved



TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS032395

Client Project Number

: 722450.21020/MACDILL AFB

Date Prepared

: 3/23/95

Lab Project Number

: 95-0820

Date Analyzed

: 3/23/95

Matrix

: SOIL

Sequence Number

: TVH3

Method Number

: 5030/8015 MCD.

		LCS	
Compound Name	Theoretical Concentration mg/L	Concentration mg/L	QC Limit mg/L
Gasoline	5.00	3.92	3.5-6.5

QUALIFIERS

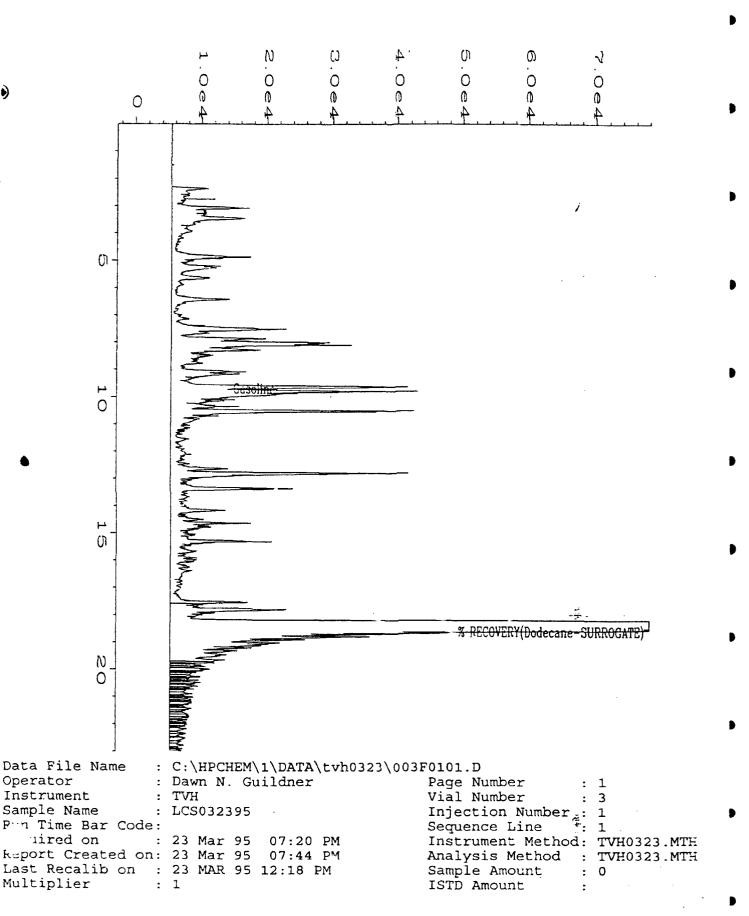
U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Approved



TOTAL EXTRACTABLE HYDROCARBONS (TEH) Jet Fuel Boiling Range

: 3/8,9,10,13/95 Date Sampled

: 3/14/95

Client Project Number

722450.21020/MAC DILL

Date Received

Lab Project Number

Date Prepared

: 3/15,17/95

Matrix

: 95-0820 : SOIL

Date Analyzed

: 3/18-20,22/95

Method Number

: 3500/MOD.8015

Evergreen	Client	Surrogate	TEH *	MDL
Sample #	Sample #	Recovery	rng/Kg	mg/Kg
SB031595	SOIL METHOD BLANK	81%	U	10
SB031795	SOIL METHOD BLANK	77%	U	10
X04173	24 MP-1A(3'-4')	87%	U	11
X04174	24 MP-1B(8'-9')	84%	140	12
X04175	24 MP-2 (3'-4')	89%	11	11
X04176	24 MP-3 (3-5)	85%	U	11
X04177	24 MP-4 (3-5)	85%	U	11
X04178	24 MP-5 (3-5)	85%	U	12
X04179	24 MP-6 (4-6)	83%	U	12
X04181	2455-1 (4-6)	90%	210	12
X04182	24\$\$-2(4-6)	80%	32	12
X04183	75SS-1 (3-5)	79%	13	12
X04185	75SS-2(3-5)	**	15000	550
X04186	75SS-2(9-11)	78%	16	12
X04186 DUP	75SS-2(9-11)	86%	U	12

QUALIFIERS

U = TEH analyzed for but not detected.

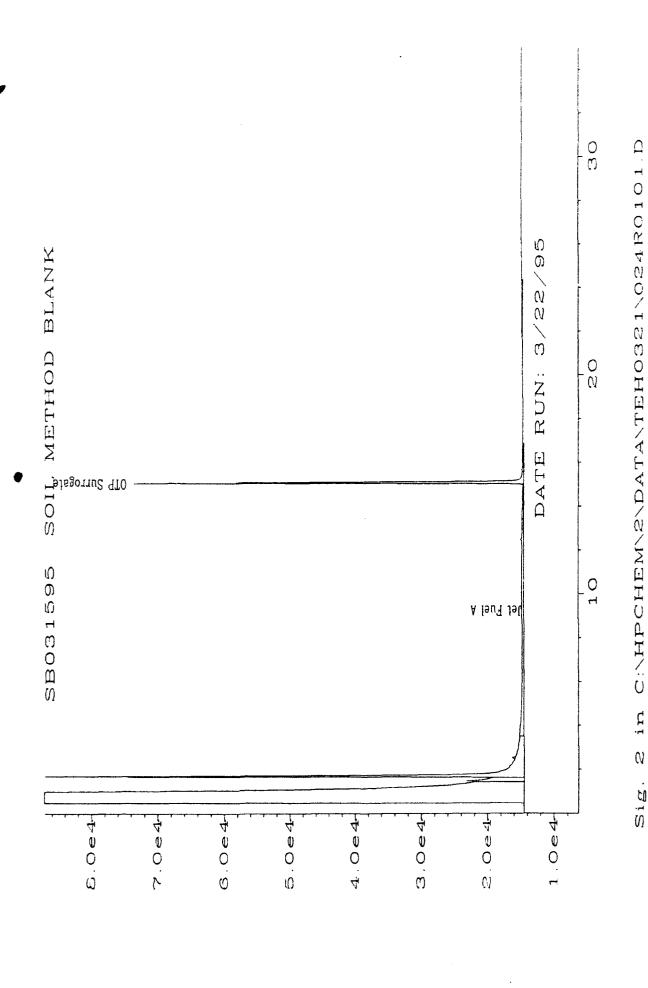
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolate. value.

MDL = Method Detection Limit

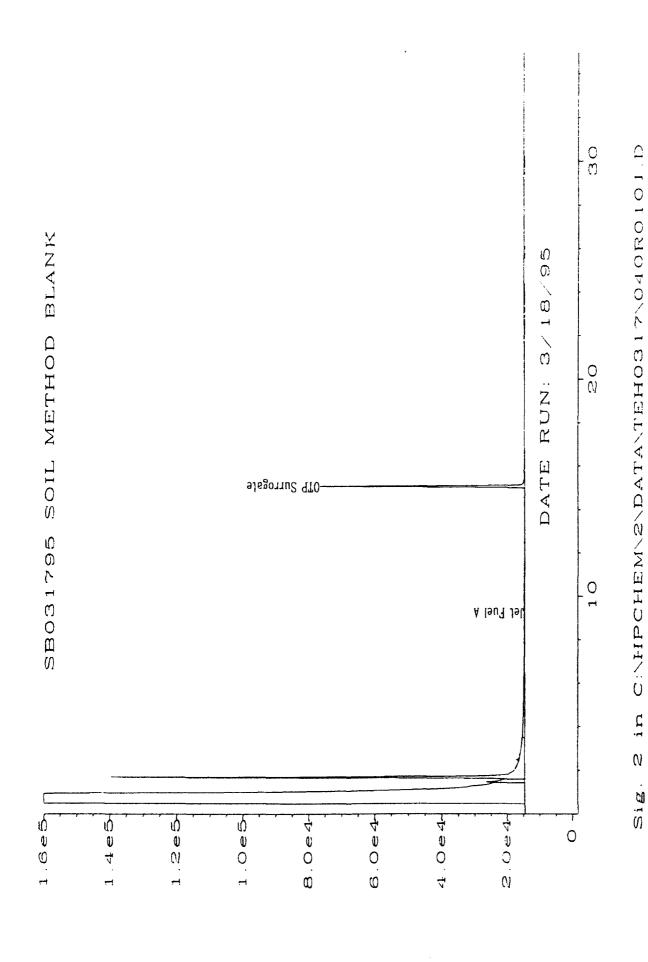
^{** =} Unable to separate surrogate from analyte.

^{* =} Sample and MDL values are reported on a dry weight basis.

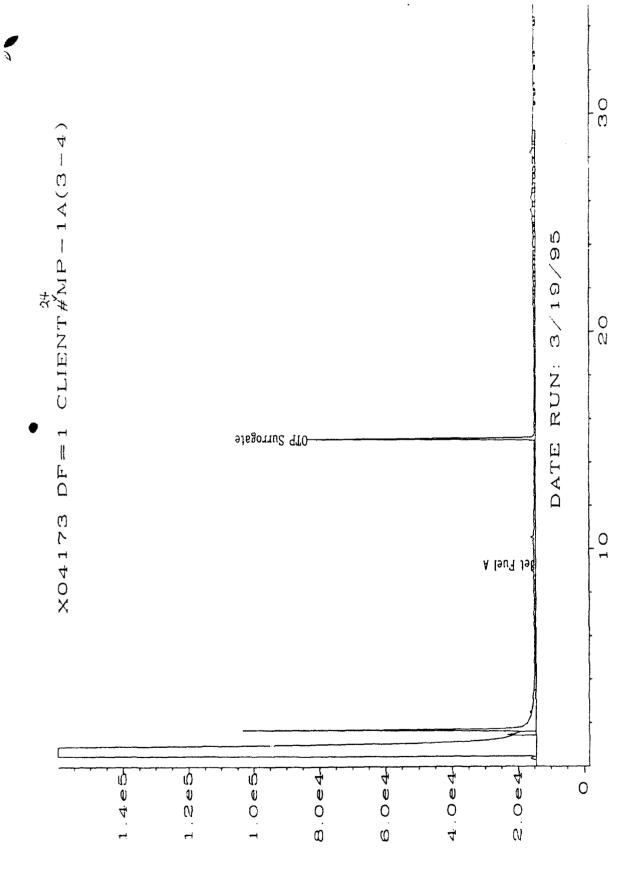


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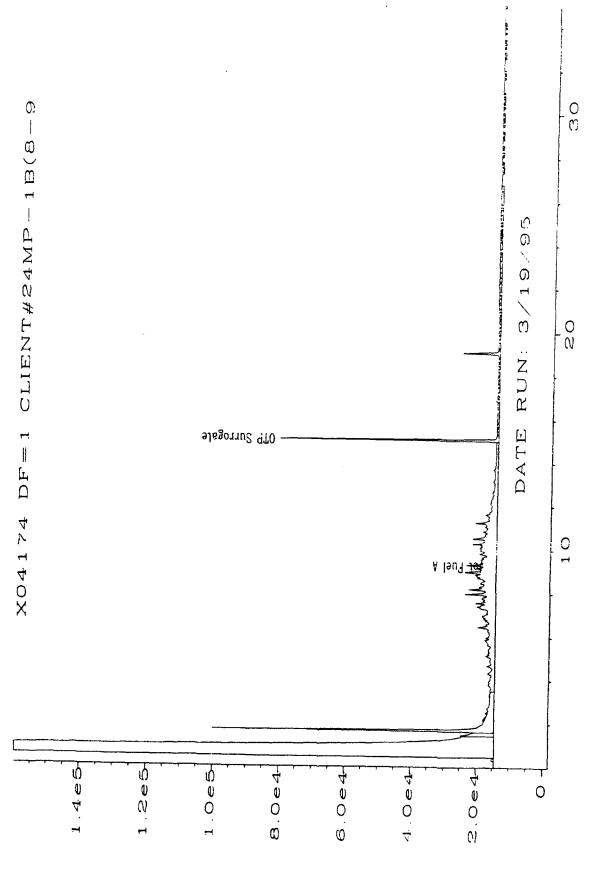


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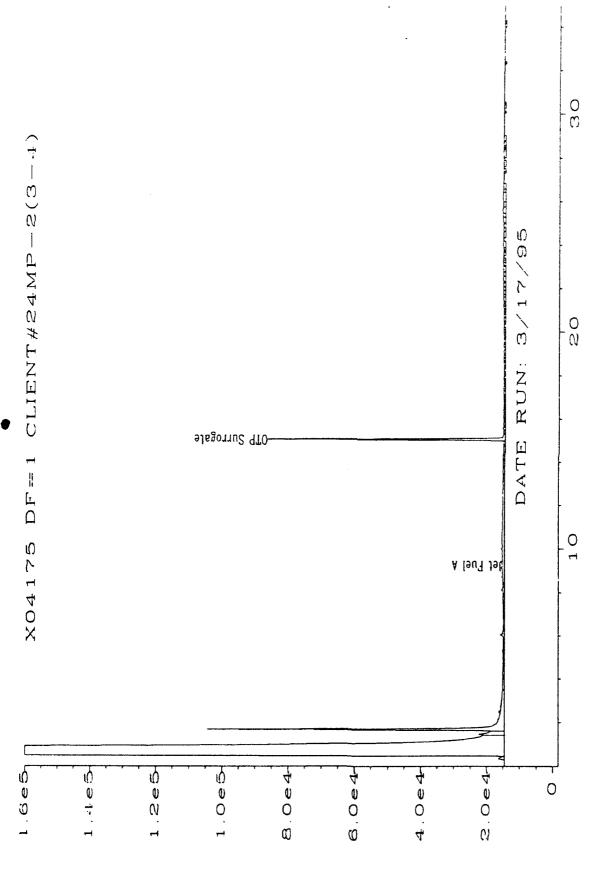


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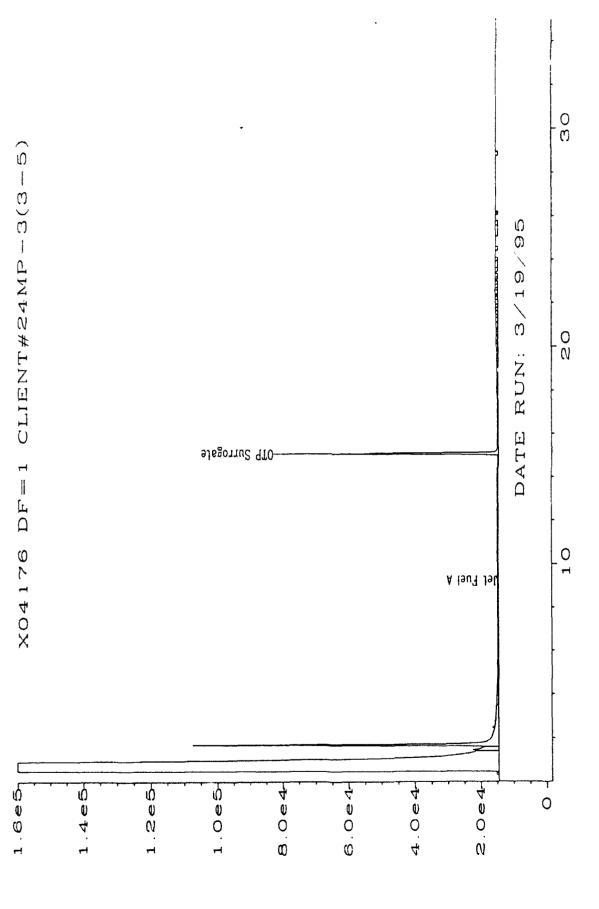


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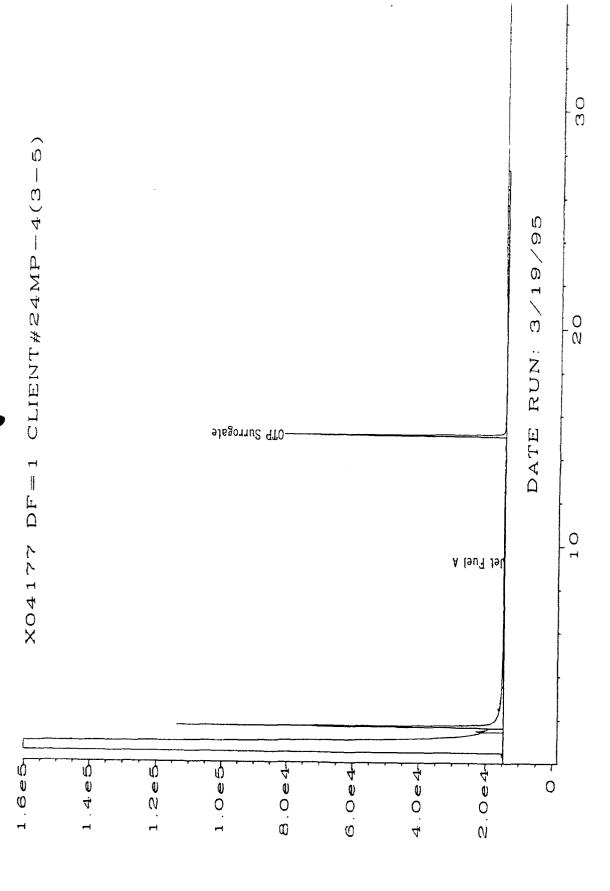
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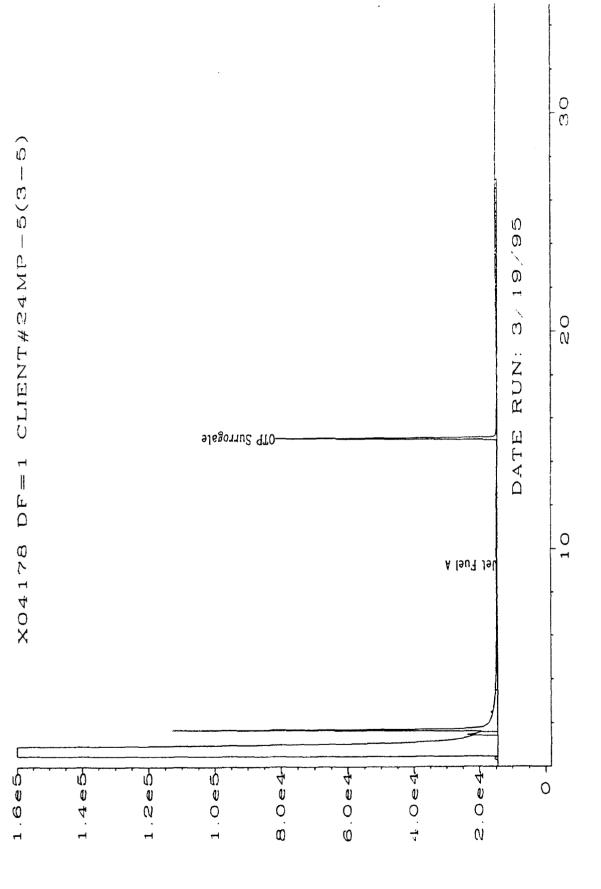
2 in C:\HPCHEM\2\DATA\TEHO317\056R0101.D Sig.

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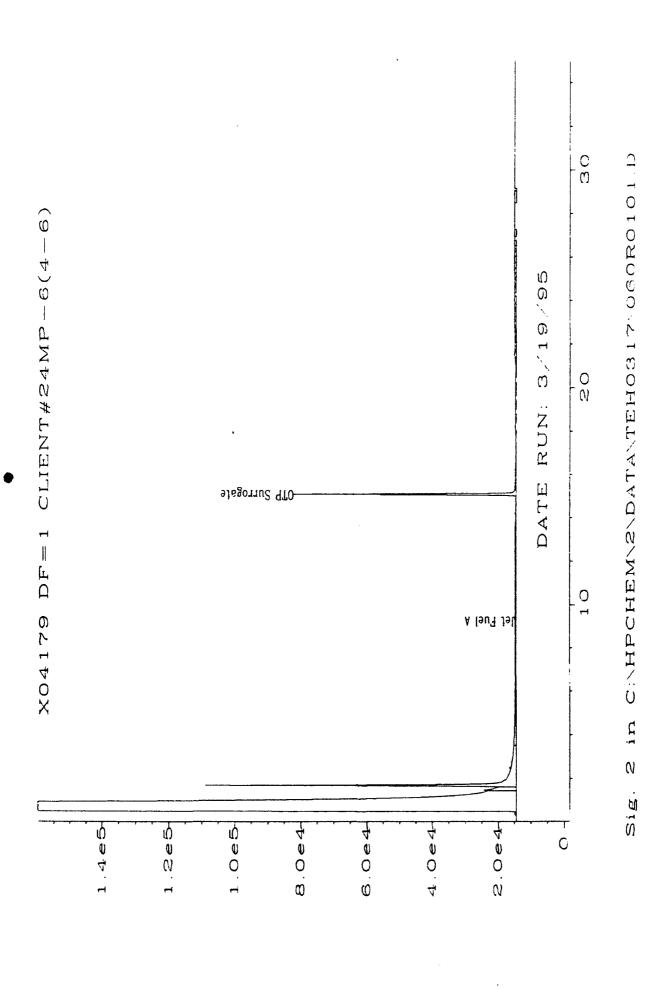


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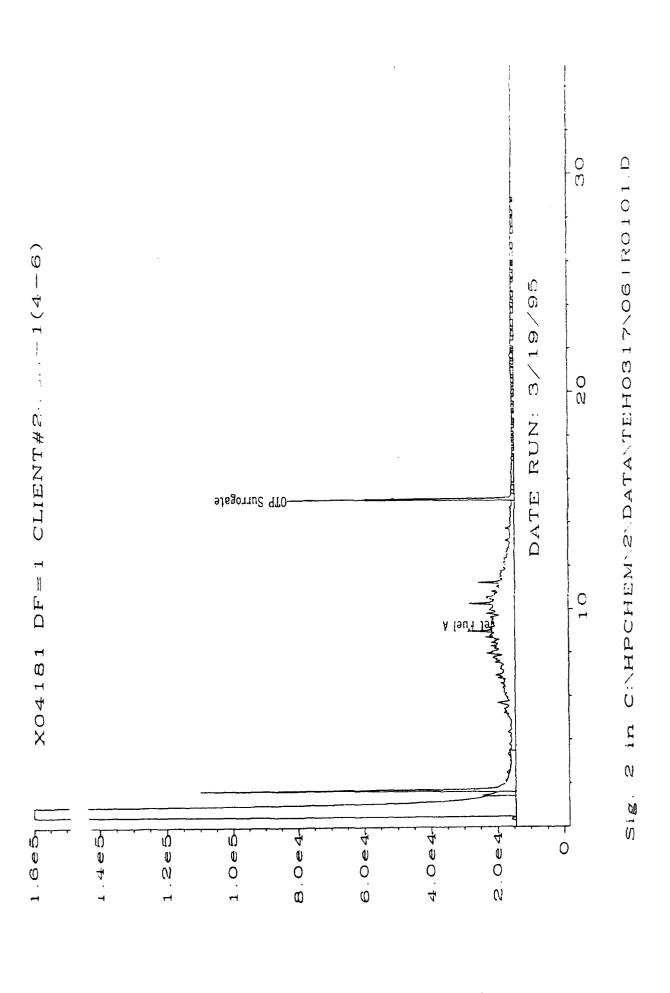
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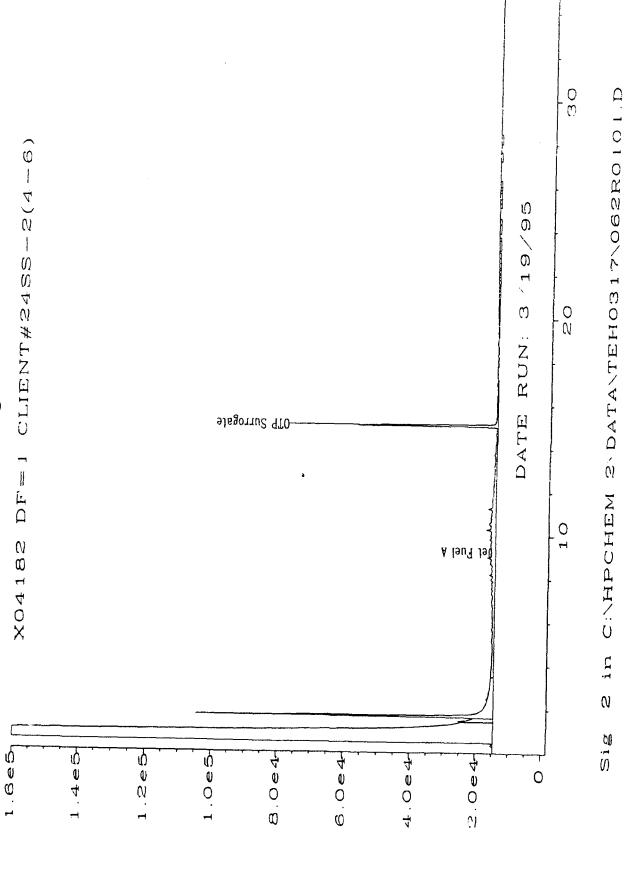


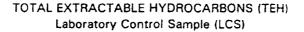
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LCS Number

: LCS031595

Client Project Number

: 722450.21020/MAC DILL

Date Prepared

: 3/15/95

Lab Project Number

: 95-0820

Date Analyzed

: 3/18/95

Matrix

: SOIL

Sequence Number

: TEH21

Method Number

: 3500/Mod. 8015

 Compound Name
 Theoretical Concentration mg/L
 Concentration mg/Kg
 QC Limit mg/Kg

 JET FUEL
 1000
 960
 750-1750

QUALIFIERS

U = TEH analyzed for but not detected.

H H. C

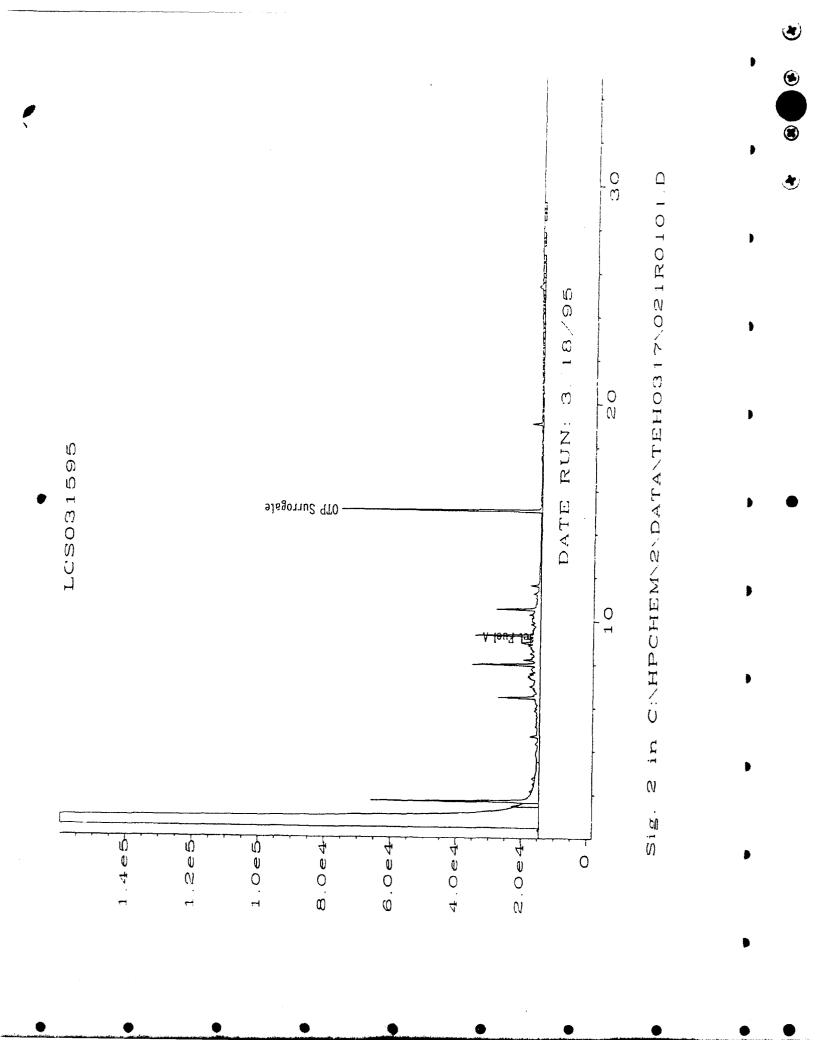
B = TEH found in blank as well as sample (blank data should be compared).

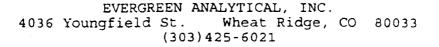
E = Extrapolated value.

NA = Not Available.

Analyst

Approved





Miscellaneous Analyses

Evergreen Sample #	Client <u>Sample ID</u>	Moisture (%)
X04173	24MP-1A (3'-4')	10.1
X04174	24MP-1B (8'-9')	16.8
X04175	24MP-2 (3'-4')	16.1
X04176	24MP-3 (3-5)	14.6
X04177	24MP-4 (3-5)	14.8
X04178	24MP-5 (3-5)	17.5
X04179	24MP-6 (4-6)	17.6
X04181	24SS-1 (4-6)	16.0
X04182	24SS-2 (4-6)	13.7
X04183	75SS-1 (3-5)	16.7
X04185	75SS-2 (3-5)	11.3
X04186	75SS-2 (9-11)	18.0

Analyst

Approved

0820tm.4



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street - Golden, CO 80403

ION-CLP ANALYSIS RESULTS

Date:

03/24/95

Lab Name: Contact:

Huffman Labs

Sue Zeller

Client: Evergreen Analytical Contact: Patty McClellan

Sample Matrix:

soil

Huffman Lab #: 143595

	Client	Lab	Element/	Dilution	Results	Units	Prep	Analysis	Sample	Method	Instrument
	Smp#	ID#	Compound	Factor			Date	Date	Size (g)	#	ID
-	7555-4 (3-4)	14359501	TC	NA	< 0.05	%	NA	03/23/95	2.195	Leca CR12	#7
	75SS-4 (3-4)	14359501	TC	NA	< 0.05	%	NA	03/23/95	2.067	Leco CR12	#7
	75SS-6 (3-5)	14359502	TC	NA	< 0.05	%	NA	03/23/95	2.154	Leco CR12	#7
	75MP-7 (4-6)	14359503	TC	NA	< 0.05	%	NΑ	03/23/95	3.332	Leco CR12	#7
	75MP-17 (4-6)	14359504	TC	NA	< 0.05	%	NA	03/23/95	2.888	Leco CR12	#7
	24MP-7 (2-4)	14359505	TC	NA	< 0.05	%	NA	03/23/95	3.555	Leco CR12	#7
	24MP-3 (3-5)	14359506	TC	NA	0.21	%	NA	03/23/95	3.331	Leco CR12	#7
	24MP-4 (3-5)	14359507	TC	NA	0.13	%	NA	03/23/95	2.908	Leco CR12	#7
	24MP-6 (4-6)	14359508	TC	NA	2.21	%	NA	03/23/95	3.093	Leco CR12	#7
	24MP-16 (4-6)	14359509	TC	NA	0.73	%	NA	03/23/95	3.394	Leco CR12	#7
	7555.4 12.41	14359501	СС	NA	< 0.02	%	NA	03/21/95	0.111	COU-02	"tower"
		14359501	CC	NA.	< 0.02	%	NA	03/21/95	0.259	COU-02	"tower"
		14359502	CC	NA	< 0.02	%	NA	03/21/95	0.185	COU-02	"tower"
		14359503	CC	NA.	< 0.02	%	NA	03/21/95	0.248	COU-02	"tower"
		14359504	CC	NA	< 0.02	%	NA	03/21/95	0.221	C0U-02	"tower"
•	•	14359505	CC	NA	< 0.02	%	NA	03/21/95	0.127	COU-02	"tower"
-		14359506	CC	NA	< 0.02	%	NA	03/21/95	0.130	COU-02	"tower"
		14359507	CC	NA	< 0.02	%	NA	03/21/95	0.128	COU-02	"tower"
		14359508	cc	NA	< 0.02	%	NA	03/21/95	0.138	COU-02	"tower"
		14359509	CC	NA	< 0.02	%	NA	03/21/95	0.165	COU-02	"tower"
		7.0	10isture			-sult					
	7555-4 (3-4)	14359501	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
	75SS-4 (3-4)	14359501	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
0871	7555-6 (3-5)	14359502	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
	75MP-7 (4-6)	14359503	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
	75MP-17 (4-6)	14359504	TOC	NA	< 0.05	%	NA	NA	NA_	by calc	NA
)819	24MP-7 (2-4)	14359505	TOC	NA	< 0.05	%	NA	NA	NA	by calc	NA
	24MP-3 (3-5)	14359506	TOC	NA	0.210	1.35 %	NA	NA	NA	by catc	NA
10.20	24MP-4 (3-5)	14359507	TOC	NA	0.130	15%	NA	NA	NA	by calc	NA
1820	24MP-6 (4-6)	14359508	TOC	NA	2.21	.68 %	NA	NA	NA.	by calc	NA
	24MP-16 (4-6)	14359509	TOC	NA	0.73	.87%	NA	NA	NA	by calc	NA

Samples analyzed and results reported on an as received basis.

Soil samples are not homogeneous.

Values reported below Detection Limits are for reference only.

TC detection limit = 0.05% CC detection limit = 0.02% TOC detection limit = 0.05%

umbers to the left above represent the last four digits of the EAL project nuer under which the samples were analyzed.

2 original report and quality control results are filed with EAL project 95-0819. Page 1



CASE NARRATIVE

Evergreen Analytical Project (EAL) #: 95-0819

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 13, 1995, eight soil samples and one Rinseate Blank were received in good condition at Evergreen Analytical Laboratory. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Chlorobenzene, 1,3,5-trimethylbenzene (TMB), 1,2,4-TMB,1,2,3-TMB, and 1,2,3,4-Tetramethylbenzene (TEMB), hereafter referred to as BTEX.

BTEX, Soil Matrix, Method SW8020
There were no quality control anomalies to report.

PES sample number 24MP-8(2-4) and 24MW-6(2-4) were analyzed at a dilution due to the inability to purge at DF=1. The reporting limits were raised accordingly.

Total Volatile Hydrocarbon (TVH), Soil Matrix, Method 8015M There were no quality control anomalies to report.

Total Extractable Hydrocarbons, (TEH), Soil Matrix, Method 8015M, JET-A.

There were no laboratory duplicates, matrix spike or matrix spike duplicate samples analyzed with this batch due to insufficient sample volume. There were no other quality control anomalies to report.

Total Organic Carbon in Soil
Total Organic Carbon (TOC) in Soil was analyzed by Huffman
Research, Inc. of Golden, Colorado. TOC was determined by
analyzing for total carbon (TC) and inorganic (carbonate) carbon
(CC), then calculating the difference as TOC. The report from
Huffman is included.

Patricia A. McClellan, Project Manager

Evergreen Analytical Sample Log Sheet Project # <u>95-0819</u> Date(s) Sampled: 03/10,11/95 COC Date Due: 03/17/95 Date Received: 03/14/95 1000 Holding Time(s):03/24,25-BTEX, TVF Client Project I.D. 722450.21020/MAC DILL Rush STANDARD Client: Parsons Engineering Science, Inc. Shipping Charges N/A Address: 1700 Broadway Suite 900 **E.A.** Cooler # 422 Denver, CO 80290 Airbill # 9581826225 FEDEX Contact: TODD WIEDEMEIER Custody Seal Intact? Y Cooler X **Bottles** Client P.O. _ COC Present Y Sample Tags Present? Y Phone #831-8100 Fax #831-8208 Sample Tags Listed? Y Sample(s) Sealed? Special Invoicing/Billing_ Special Instructions REPORT SOILS ON A DRY WEIGHT BASIS. SPLUS TMB, TEMB AND CHLOROBENZENE. ANALYZE AN MS/MSD AND LAB DUPLICATE ON THIS CLIENT'S SAMPLES. Lab Client ID # ID# Analysis Mtx Btl Loc X04163A/B 24MP-7(2-4) **SBTEX 8020** S 2WM 2 s X 4164A/B 24MP-8(2-4) **§BTEX 8020** 2WM S X04165A/B 24MP-9(3-5) **SBTEX 8020** 2WM X04166A/B 24MP-9(9-11) S 2 **SBTEX 8020** 2WM X04167A/B 24MP-10(2-4) **SBTEX 8020** S 2WM X04168A/B 24MW-6(2-4) **\$BTEX 8020** S 2WM S X04169A/B 24MW-6(9-11)**SBTEX 8020** 2 2WM X04170A/B 175MP-1(3-5) **SBTEX 8020** S 2WM 2 X04171A/B RINSATE BLANK W **SBTEX 8020** 40V 2 TRIP BLANK X04172A/B W **SBTEX** 8020 40V X04163C 24MP-7(2-4) S 2 TVH 2WM X04164C 24MP-8(2-4) TVH S 2WM X04165C 24MP-9 (3-5) TVH S 2WM 2 X04166C 24MP-9(9-11) TVH S 2 2WM X04167C 24MP-10(2-4) TVH S 2WM 2 X04168C S 24MW-6(2-4) TVH 2 2WM X04169C 24MW-6(9-11) S TVH 2WM X04170C 175MP-1(3-5) S TVH 2WM R=Sample to be returned Route GC/MS SxPrep 1 GÇ 4 Metals Wet Chem 1 Acctq 1 To SxRec C QA/QC <u>C</u> Sales C File Oriq

Custodian/Date:

mazlistist

Page 1 of 2 Page(s)

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
•					
1163D	24MP-7(2-4)	тен	S	2WM	B2
X04164D	24MP-8(2-4)	TEH	S	2WM	B2
X04165D	24MP-9 (3-5)	TEH	S	2WM	B2
X04166D	24MP-9(9-11)	ТЕН	S	2WM	B2
X04167D	24MP-10(2-4)	TEH	S	2WM	B2
X04168D	24MW-6(2-4)	TEH	S	2WM	B2
K04169D	24MW-6(9-11)	TEH	<u>s</u>	2WM	B2
(04170D	175MP-1(3-5)	TEH	s	2WM	B2
(04163F	24MP-7(2-4)	% MOISTURE	S	4WM	B2
(04164E	24MP-8(2-4)	% MOISTURE	S	4 WM	B2
(04165E	24MP-9 (3-5)	% MOISTURE	S	4WM	B2
(04166E	24MP-9(9-11)	% MOISTURE	S	4WM	B2
(04167E	24MP-10(2-4)	% MOISTURE	S	4WM	B2
(04168E	24MW-6(2-4)	% MOISTURE	S	4WM	B2
(04169E	24MW-6(9-11)	% MOISTURE	S	4WM	B2
(04170E	175MP-1(3-5)	% MOISTURE	s	4WM	B2
(04163E	24MP-7(2-4)	TOC	S	2WM	OUT

Page 2 of 2 Pages
Project # 95-0819

R=Sample to be returned

CHAIN UP CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Page Lot	CLIENT CONTACT (print) DAIL () LEGENIUM PROJECT I.D. 722 LO 20 /NNC DICE AFE EAL QUOTE # PONE	expedited turnaround subject to additional fee	EAL use only	in shaded area		EA: A () ()	Project # () \	Custodian	T V	EAL Sample No.		. 20)	(00)	40	30	77	3	70
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lytical Inc.	4036 Younglield St. Wheat Bidge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 _FAX RESULTS Y / N		ANALYSIS REQUESTED	(36)) ((ciri	Casce 413 Casceline Casceline Casceline	OS (ci	8020/6 418.1/0 12108 12108 12108 12108	X∃T8 HPH TVPH TEPH TEPH TEPH TOTEL	×××××××××××××××××××××××××××××××××××××××	×	×	y y x	メンス	×	×	WY X X	1
Evergreen Analytical Inc.	4036 Youngfield Wheat Ridge, Co (303) 425-6021 FAX (303) 425-61 (800) 845-7400 FAX RESULTS		1	(4	(6	54.2 (circle) ircle) 508 (circle 508/508	9/0808 9/0808 9/0808	cides 8	Pesti Pest Herbi								myr	+ + + + + + + + + + + + + + + + + + + +
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	21P 8029	}			015/		_	Cont	TIME 20. C	3-10-15/09156	r 1400 5	5 160c S	3-10-31 (700 5	3-11-15 69co S	3-11-55 0030 5	r 103c 5	5 1915 5	- 1 1
70000	ADDRESS 1700 BITA LUCY, CITY LEMUST STATE CO.	Sampler Name:	Ky18/1. Ca.	Evergreen Analytical Cooler No. 475	Cooler Received	Please PRINT	all information:	CLIENT	IDENTIFICATION SAMPLED	24Mp-7(2-4) 3-10-	34MP-8(2-4) 3-10-15	2414P-9(3-5) 372-45	24mp-9 (g-11) 3-10-8	24mp-10 (3-4) 3-11-1	2-11-8 (27) 3-11-9	74m2-6 (9-11) 3-11-95	13-11-8 S-11-95	10 / 5
Č	ADDRE CITYPHONE	Samp (signatu	(print)	Evergre	Cooler				101	241	Whe	34m	348	<u>अ</u> नुस्र	WIT.	ナヨ	<u>तिया</u>	-

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instructions:

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Date/Intra Balmane barts of 10, 10 at

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Location $\mathcal{O}(\mathcal{B})$ Container Size

Evergreen Analytical Sample Receipt,	/Check-in Record
Date & Time Rec'd: 3/4/95 10:00 Shipped	
client: Rarsons.ES	(Airbill # if applicable)
Client Project ID(s): 722450.21020 MGC	DINAFB
\sim \sim \sim \sim	Cooler(s): Y N
Cooler# <u>1/32</u>	
Ice packs (Y) N Y N Y N	Y N Y N
Temperature °C	
<pre>1. Custody seal(s) present: Seals on cooler intact Seals on bottle intact</pre>	Y N N/A
2. Chain of Custody present:	
3. Containers broken or leaking: (Comment on COC if Y)	
4. Containers labeled:	
5. COC agrees w/ bottles received: (Comment on COC if N)	
6. COC agrees w/ labels: (Comment on COC if N)	<u> </u>
7. Headspace in VOA vials-waters only (comment on COC if Y)	
8. VOA samples preserved:	
 9. pH measured on metals, cyanide or phenolics List discrepancies *Non-EAL provided containers only, water s 	
10. Metal samples present: Total, Dissolved D or PD to be filtered:	
T,TR,D,PD to be Preserved:	
11. Short holding times: Specify parameters	
12. Multi-phase sample(s) present:	
13. COC signed w/ date/time:	
.	D wysgol Hanny gold dag Mariner (** 1915 Marine gold a dae 2000 Art Old Bry 19 yng hann y gyfraf a dae 200 Art

CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REGUEST

80290 FAX # Braga Luce STATECO ES -8100 Parons 300 331 CITY LEAVE COMPANY ADDRESS PHONE#

4036 Yo	Wheat B	(303) 45	FAX (30)	(800) 84
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Everar

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Ridge, Colorado 80033 125-6021 03) 425-6854 445-7400

FAX RESULTS Y / N

21020 /MACDIC AFA CLIENT CONTACT (print) 1020 W. C. C. C. C. Mint P.O.# 722KPD. PROJECT I.D. EAL. QUOTE #

Page L of

expedited turnaround subject to additional fee TURNAROUND REQUIRED*

EAL use only Do not write in shaded area

ANALYSIS REQUESTED

MATRIX

422 Evergreen Analytical Cooler No._ Sampler Name: Cooler Received (signature)_ (print)

in shaded area EAL Project # Custodian	EAL Sample No.			-								Location
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SAUGN / WG-SIBISH	(0!											•
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PH 418.1/Oil & Gresse 413.1 (circle) PH 8015mod. (Gasoline)	7	X	X	У	لا	צ	×	×	Х			
EX 8020/602 (circle)/MTBE (circle)	AT	¥										
EX 8020/603 /ci	T8	×	ኢ	X	Y	시	×	X	거	×		
rbicides 8150/515 (circle) B Screen	$\overline{}$											
SVPCBs 8080/608/508 (circle)	He											
sticides 8080/608 (circle)	₽ ₆											
A 8270/625 (circle)	9d						_					
A 8260/624/524.2 (circle)	N8											
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egbul2 \	I!O											
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le Tunking Discharger Ground	PW.									X,		
of Containers		9	N	'n	ما	Ŋ	Ŋ	乃	S	~		
	TIME	090	1400	209]	()	ಯೂ	0130	1035	1415	1409		
SINT PATE	SAMPLED	3-10-45	3-10-1:5	3-10-45 [600	3-10-95 (700	3-11-15 0900	3-11-95 0930		3-11-45	3-11-65		
Evergreen Analytical Cooler No. 422 Cooler Received Please PRINT all information: CLIENT SAMPLE DATE	NO	24Mp-7(2-4) 3-10-15 0915	34MP-3(2-4) 3-10-115	24mp-9(3-5)	34mp-9 (g-11)	34mp-10 (2-4)	(1-2) WMM	24m (9-11) 3-11-45	(2-E) 1-9NSTI	Enside Shale		E

Instructions:

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Date/Time | Localinguished by (Signature)

Date/Time Received by (Suprimpre)

, PaterTime

Container Size

(8)





3

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-7(2-4)		MacDill
Lab Sample Number	: X04163	Lab Project No.	: 95-0819
Date Sampled	: 3/10/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Soil
Date Analyzed	: 3/16/95	Lab File No.	: BX2031614
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	4.8
Toluene	108-88-3	U	4.8
Ethyl Benzene	100-41-4	U	4.8
Total Xylene	1330-20-7	U	4.8
Chlorobenzene	108-90-7	U	4.8
1,3,5-trimethylbenzene	108-67-8	υ	4.8
1,2,4-trimethylbenzene	95-63-6	U	4.8
1,2,3-trimethylbenzene	526-73-8	U	4.8
1,2,3,4-tetramethylbenzene	488-23-3	U	4.3

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 90% QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

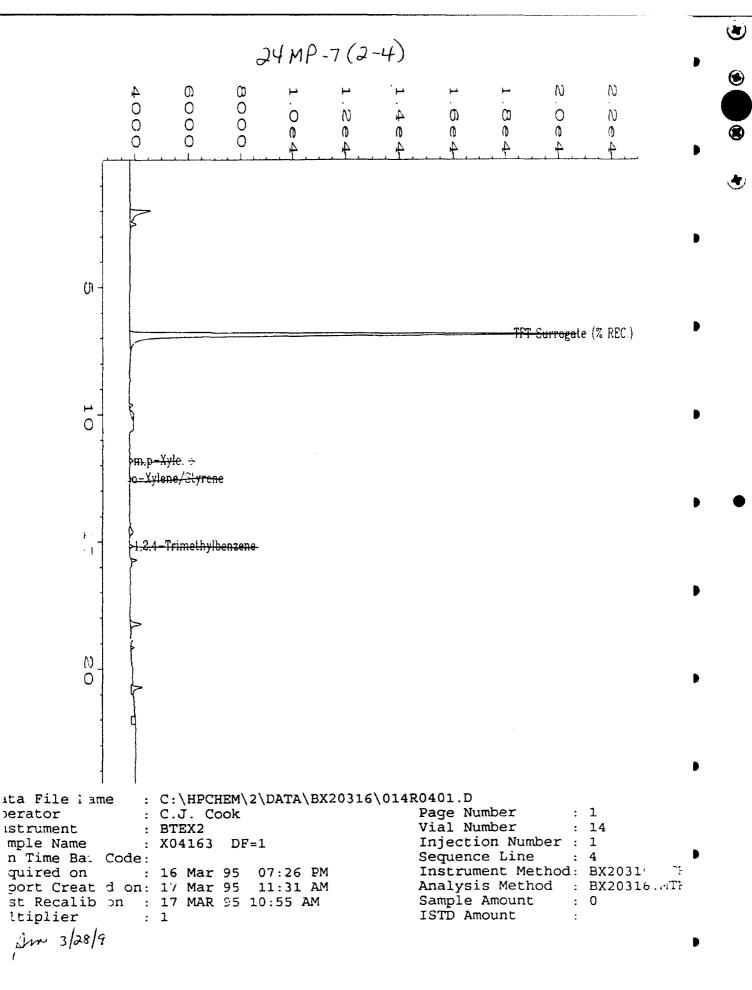
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available

Analyst

Approved



BTEX Data Report

Client Project No.

: 722450.21020

Client Sample Number : 24MP-8(2-4) MacDill

Lab Sample Number : X04164 : 3/10/95 Date Sampled

: 95-0819 Lab Project No. Dilution Factor

: 5.00

: 3/14/95 **Date Received** Date Extracted/Prepared : 3/17/95

Method Matrix

: 8020 : Soil

Date Analyzed Methanol Extract? : 3/17/95

: No

Lab File No. Method Blank No. : BX203:713 : MB031795

Compound Name	Sample			
	Cas Number	Concentration* ug/kg	PQL* ug/kg	
Benzene	71-43-2	U	25	
Toluene	108-88-3	U	25	
Ethyl Benzene	100-41-4	U	25	
Total Xylene	1330-20-7	U	25	
Chlorobenzene	108-90-7	U	25	
1,3,5-trimethylbenzene	108-67-8	U	25	
1,2,4-trimethylbenzene	95-63-6	U	25	
1,2,3-trimethylbenzene	526-73-8	U	25	
1,2,3,4-tetramethylbenzene	488-23-3	U	25	

Note: Sample run at DF = 5 due to inability to purge at DF = 1.

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample reported on a dry weight basis.

 $MDL = 2.5 \, \text{ug/kg}$.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

85%

QC Reporting Limits

: 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

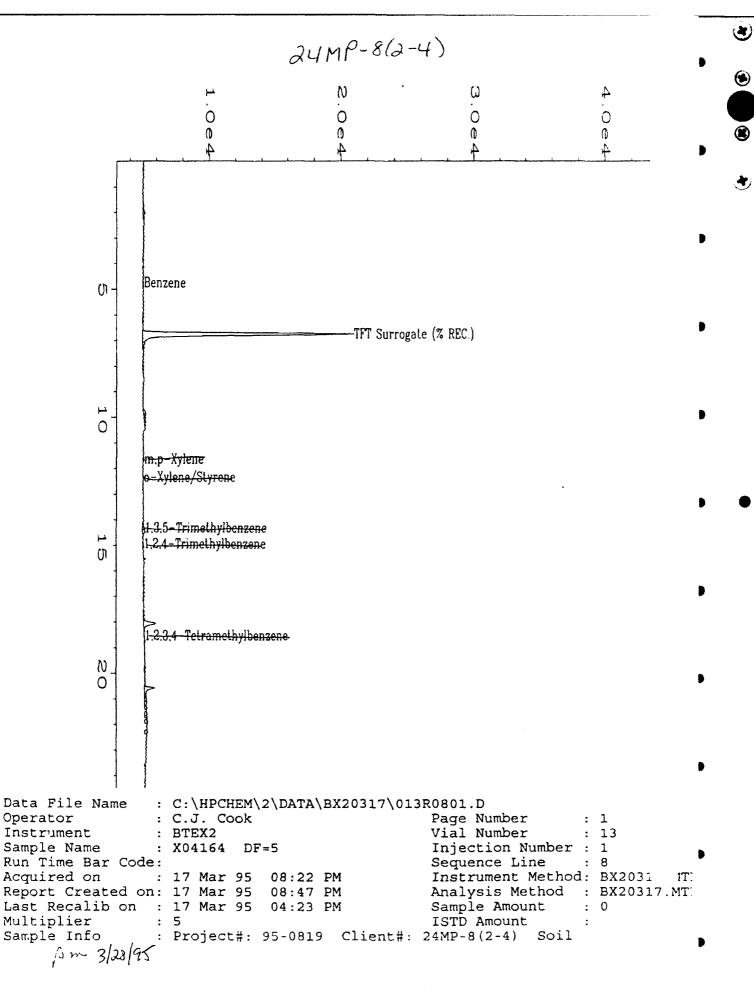
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II. pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report

		Client Project No.	:	722450.21020
Client Sample Number	: 24MP-9(3-5)			MacDill
Lab Sample Number	: X04165	Lab Project No.	:	95-0819
Date Sampled	: 3/10/95	Dilution Factor	:	1.00
Date Received	: 3/14/95	Method	:	8020
Date Extracted/Prepared	: 3/1 95	Matrix	:	Soil
Date Analyzed	: 3/17/95	Lab File No.	:	BX2031622
Methanol Extract?	: No	Method Blank No.	;	MB031695

	Sample				
Compound Name	Cas Number	Concent	tration*	PQL*	
		ug/k	g	ug/kg	
Benzene	71-43-2		U	4.9	
Toluene	108-88-3	2.5	J	4.9	
Ethyl Benzene	100-41-4	0.6	J	4.9	
Total Xylene	1330-20-7		U	4.9	
Chlorobenzene	108-90-7		U	4.9	
1,3,5-trimethylbenzene	108-67-8		U	4.9	
1,2,4-trimethylbenzene	95-63-6		U	4.9	
1,2,3-trimethylbenzene	526-73-8		υ	4.9	
1,2,3,4-tetramethylbenzene	488-23-3	1.1	J	4.9	

Note: Total Xylene consist of three isomers two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 68% QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

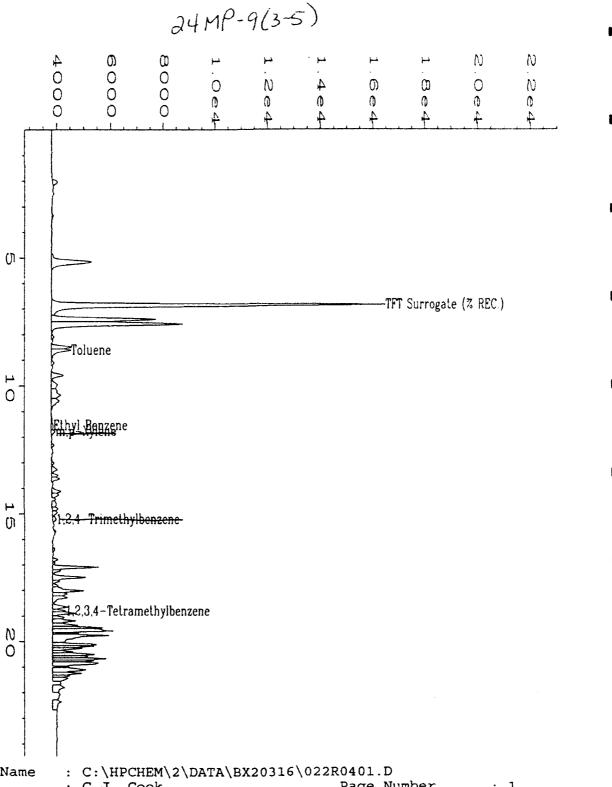
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

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Data File Name Operator : C.J. Cook Page Number Instrument Vial Number : 22 : BTEX2 Injection Number: 1 Sample Name : X04165 DF=1 Run Time Bar Code: Sequence Line : 4 Instrument Method: BX20318 : 17 Mar 95 01:18 AM Analysis Method : BX20316.MT Report Created on: 17 Mar 95 11:56 AM Last Recalib on : 17 MAR 95 10:55 AM Sample Amount ISTD Amount Multiplier

pm 3/28/95

Client # 24MP-9(35)

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-9(9-11)		MacDill
Lab Sample Number	: X04166	Lab Project No.	: 95-0819
Date Sampled	: 3/10/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031623
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration*ug/kg	PQL* ug/kg
Benzene	71-43-2	7.2	4.9
Toluene	108-88-3	1.0 J	4.9
Ethyl Benzene	100-41-4	U	4.9
Total Xylene	1330-20-7	U	4.9
Chlorobenzene	108-90-7	U	4.9
1,3,5-trimethylbenzene	108-67-8	U	4.9
1,2,4-trimethylbenzene	95-63-6	U	4.9
1,2,3-trimethylbenzene	526-73-8	U	4.9
1,2,3,4-tetramethylbenzene	488-23-3	1.1 J	4.9

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 71%

QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

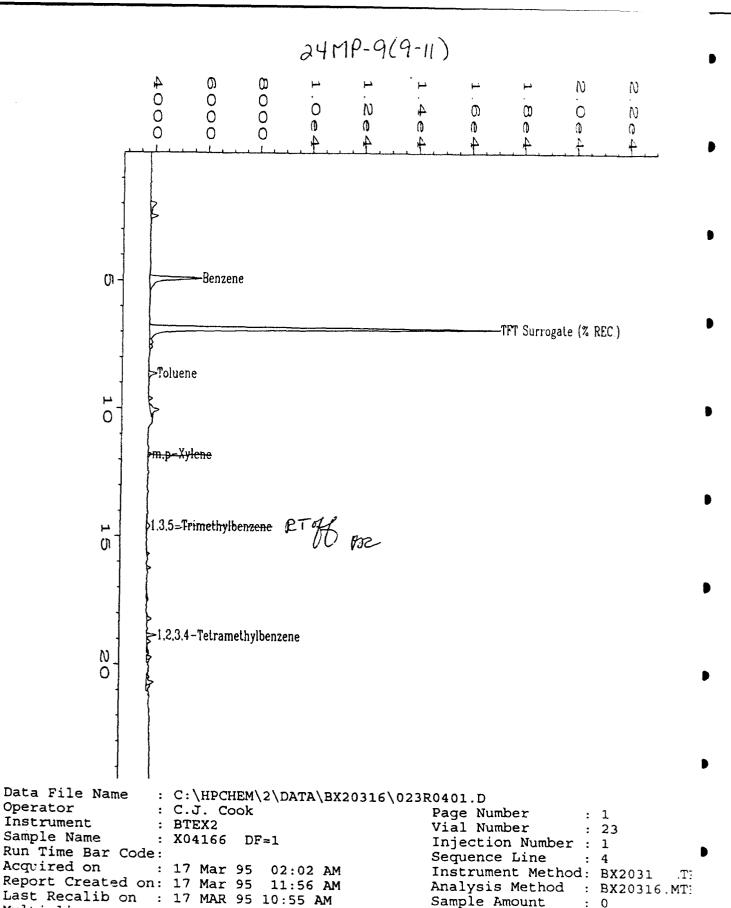
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 18, Part II, pa. 8000-14.

NA = Not available,

Analyst



Multiplier: 1 Sample Amount

ISTD Amount

Clicit 1 24MP-9(9-11)

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-10(2-4)		MacDill
Lab Sample Number	: X04167	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/17/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031714
Methanol Extract?	: No	Method Blank No.	: MB031795

Compound Name	Cas Number	Concentration*	PQL*
		ug/kg	ug/kg
Benzene	71-43-2	U	4.8
Toluene	108-88-3	U	4.8
Ethyl Benzene	100-41-4	U	4.8
Total Xylene	1330-20-7	2.4 J	4.8
Chlorobenzene	108-90-7	U	4.8
1,3,5-trimethylbenzene	108-67-8	U	4.8
1,2,4-trimethylbenzene	95-63-6	U	4.8
1,2,3-trimethylbenzene	526-73-8	U	4.8
1,2,3,4-tetramethylbenzene	488-23-3	U	4.8

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

68%

QC Reporting Limits

: 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

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24MP-10(2-4)
                                   N . 0
                .
Oe
                                                       0
                                   0
                                                       0
       Benzene
0
                                -TFT Surrogate (% REC.)
       Toluene
0
       EHHA-KNEEPE
       o-Xylene/Styrene
       1.3.5 Trimethylbenzene
       1.2.4 Trimethylbenzene
O
       1-23-Trimethylbenzene
       1,2,3,4-Tetramethylbenzene
0
        : C:\HPCHEM\2\DATA\BX20317\014R0801.D
                                                 Page Number
        : C.J. Cook
```

(4)

```
Data File Name
Operator
Instrument
                                              Vial Number
                : BTEX2
Sample Name
                                               Injection Number: 1
                : X04167 DF=1
Run Time Bar Code:
                                               Sequence Line
                                               Instrument Method: BX2031
Acquired on
            : 17 Mar 95
                             09:05 PM
Report Created on: 17 Mar 95
                                              Analysis Method : BX20317.MTE
                             09:30 PM
Last Recalib on : 17 Mar 95
                                                               : 0
                             04:23 PM
                                              Sample Amount
Multiplier
                                               ISTD Amount
Sample Info
                : Project#: 95-0819 Client#: 24MP-10(2-4)
                                                           Soil
     Am 3/28/95
```

BTEX Data Report

Client Sample Number Lab Sample Number Date Sampled	: 24MP-10(2-4) : X04167DUP : 3/11/95	Client Project No. Lab Project No. Dilution Factor	: 722450.21020 MacDill : 95-0819 : 1.00
Date Received Date Extracted/Prepared Date Analyzed Methanol Extract?	: 3/14/95	Method	: 8020
	: 3/17/95	Matrix	: Soil
	: 3/17/95	Lab File No.	: BX2031715
	: No	Method Blank No.	: MB031795

		Sample	
Compound Name	Cas Number	Concentration*	PQL*
		ug/kg	ug/kg
Benzene	71-43-2	U	4.8
Toluene	108-88-3	υ	4.8
Ethyl Benzene	100-41-4	0.6 J	4.8
Total Xylene	1330-20-7	2.2 J	4.8
Chlorobenzene	108-90-7	υ	4.8
1,3,5-trimethylbenzene	108-67-8	υ	4.8
1,2,4-trimethylbenzene	95-63-6	U	4.8
1,2,3-trimethylbenzene	526-73-8	U	4.8
1.2.3.4-tetramethylbenzene	488-23-3	U	4.8

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

69%

QC Reporting Limits

: 64%-130%

QUALIFIERS:

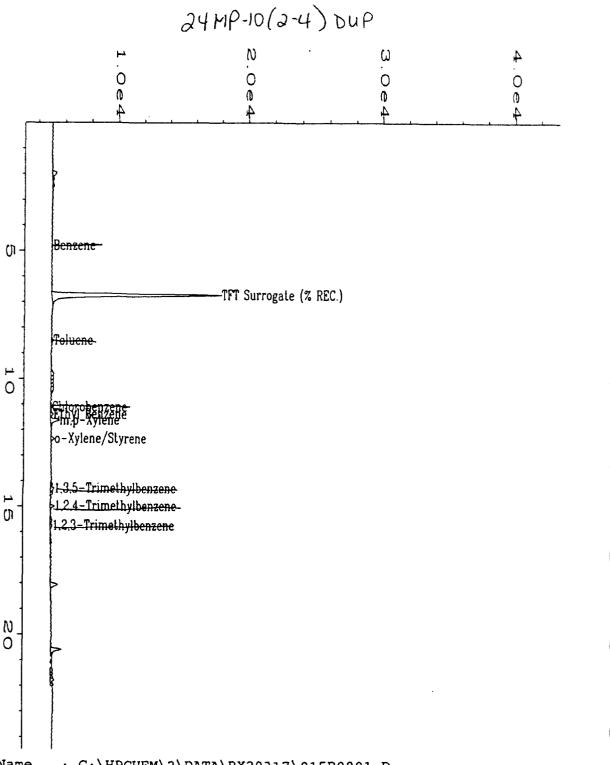
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available

Approved

Analyst



```
Data File Name
                 : C:\HPCHEM\2\DATA\BX20317\015R0801.D
Operator
                 : C.J. Cook
                                                Page Number
Instrument
                 : BTEX2
                                                Vial Number
Sample Name
                 : X04167DUP
                              DF=1
                                                Injection Number: 1
Run Time Bar Code:
                                                Sequence Line
Acquired on
                 : 17 Mar 95
                              09:48 PM
                                                Instrument Method: BX2031
Report Created on: 17 Mar 95
                              10:13 PM
                                                Analysis Method : BX20317.MTF
Last Recalib on : 17 Mar 95 04:23 PM
                                                Sample Amount
Multiplier
                                                ISTD Amount
                 : Project#: 95-0819 Client#: 24MP-10(2-4)
Sample Info
                                                              Soil
  pm 3/28/95
```

BTEX Data Report

•		Client Project No.	:	722450.21020
Client Sample Number	: 24MW-6(2-4)			MacDill
Lab Sample Number	: X04168	Lab Project No.	:	95-0819
Date Sampled	: 3/11/95	Dilution Factor	:	5.00
Date Received	: 3/14/95	Method	:	8020
Date Extracted/Prepared	: 3/17/95	Matrix	:	Soil
Date Analyzed	: 3/17/95	Lab File No.	:	BX2031718
Methanol Extract?	: No	Method Blank No.	:	MB031795

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL*
Benzene	71-43-2	U	25
Toluene	108-88-3	3.8 J	25
Ethyl Benzene	100-41-4	U	25
Total Xylene	1330-20-7	U	25
Chlorobenzene	108-90-7	U	25
1,3,5-trimethylbenzene	108-67-8	U	25
1,2.4-trimethylbenzene	95-63-6	U	25
1,2,3-trimethylbenzene	526-73-8	υ	25
1,2,3,4-tetramethylbenzene	488-23-3	3.2 J	25

Note: Sample run at DF = 5 due to inability to purge at DF = 1.

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample reported on a dry weight basis.

 $MDL = 2.5 \, \text{ug/kg}$.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 78% QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

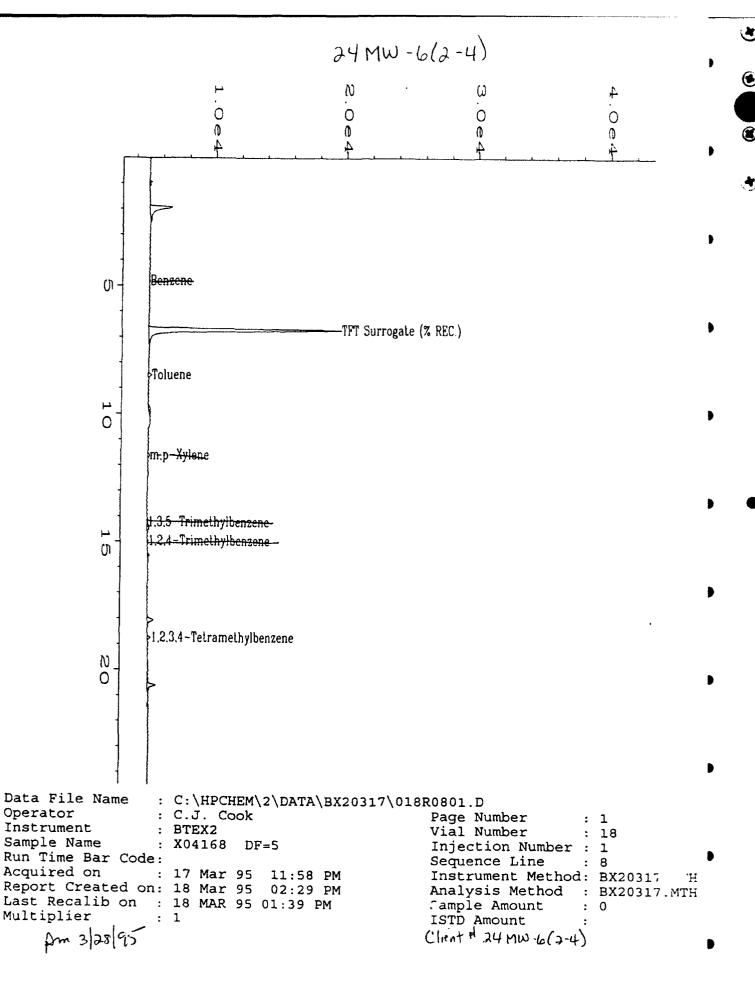
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MW-6(9-11)		MacDill
Lab Sample Number	: X04169	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Soil
Date Analyzed	: 3/17/95	Lab File No.	: BX2031626
Methanol Extract?	: No	Method Blank No.	: MB031695

Compound Name	Cas Number	Sample Concentration* ug/kg	PQL* ug/kg
Benzene	71-43-2	U	4.9
Toluene	108-88-3	U	4.9
Ethyl Benzene	100-41-4	υ	4.9
Total Xylene	1330-20-7	U	4.9
Chlorobenzene	108-90-7	U	4.9
1,3,5-trimethylbenzene	108-67-8	U	4.5
1,2,4-trimethylbenzene	95-63-6	U	4.9
1,2,3-trimethylbenzene	526-73-8	U	4.9
1,2,3,4-tetramethylbenzene	488-23-3	1.0 J	4.9

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Sample reported on a dry weight basis.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 74% QC Reporting Limits : 64%-130%

QUALIFIERS:

E = Extrapolated value

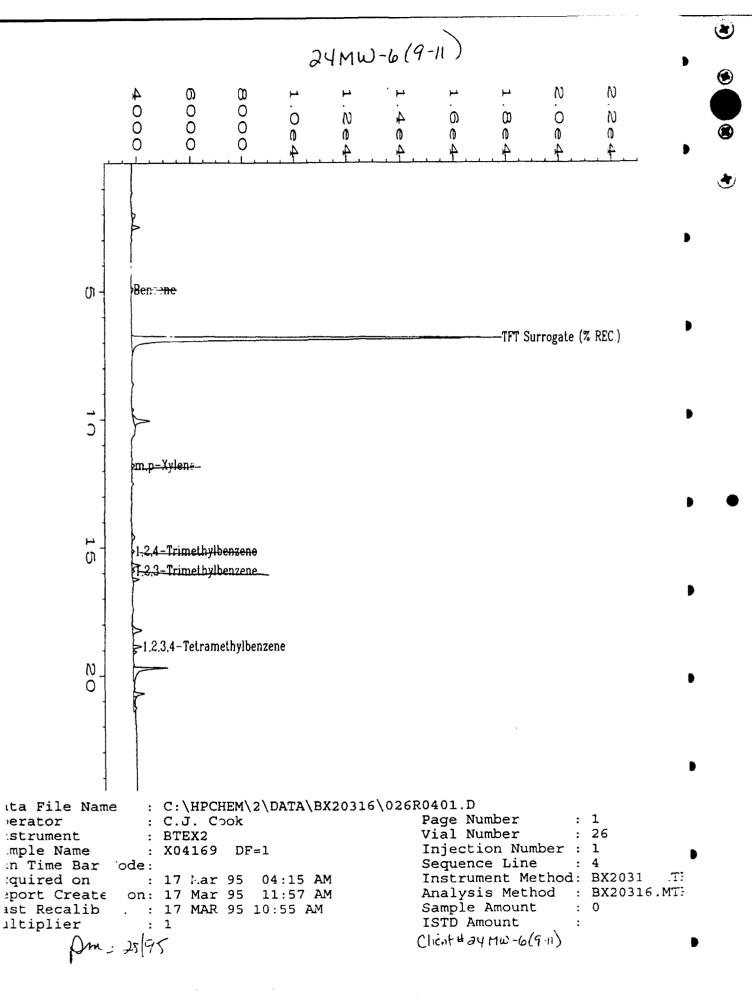
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS TEH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: 24MP-7(2-4)

Client Project No.

: 722450.21020/MAC DI

Lab Sample No.

: X04163

Lab Project No.

: 95-0819

Date Sampled

: 3/10/95

EPA Method No.

: 3500/MOD.8015

Date Received
Date Prepared

: 3/14/95 : 3/17/95

Matrix Method Blank : SOIL : SB031795

Date Analyzed

: 3/18/95

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/mL)	(ug/mL)	(ug/L)	%REC	%REC
Jet Fuel	1000	0	910	91	60-140

	Spike	MSD			C	C
Compound	Added	Concentration	MS	RPD	Lin	nits
L	(ug/mL)	(ug/mL)	%REC		RPD	%REC
Jet Fuel	1000	930	93	2.2	50	60-140

* =	Values	outside	of	QC	limits.
-----	--------	---------	----	----	---------

RPD:

O out of (1) outside limits.

Spike Recovery:

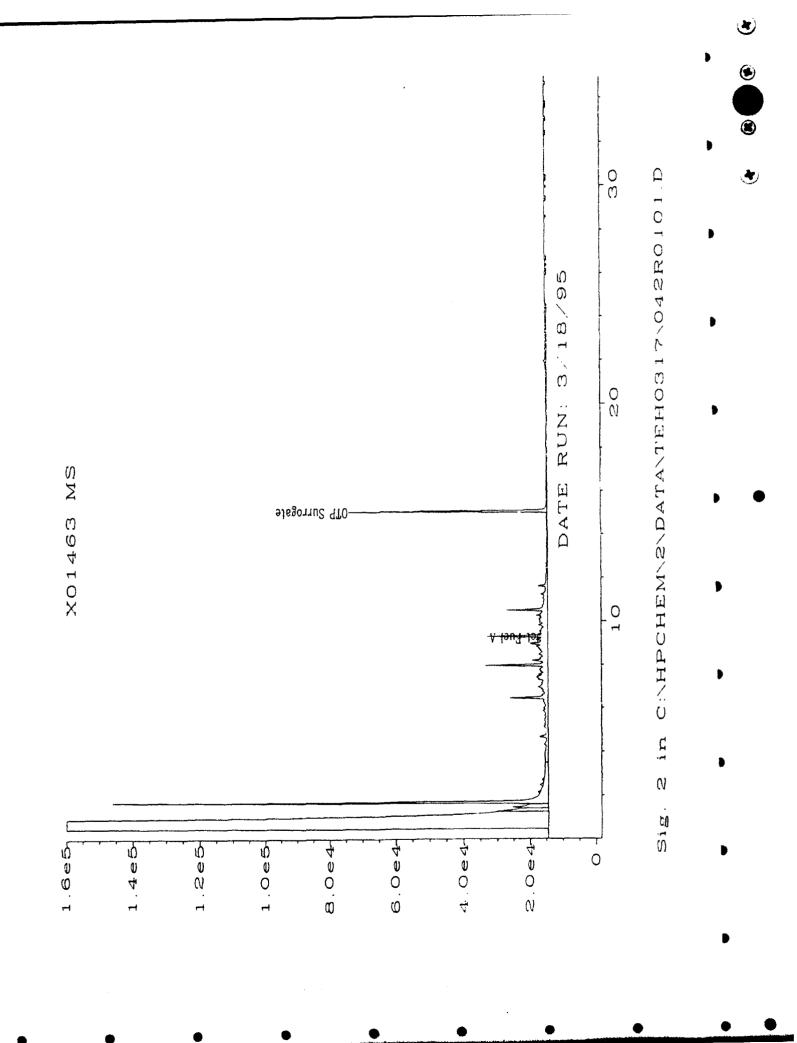
O out of (1) outside limits.

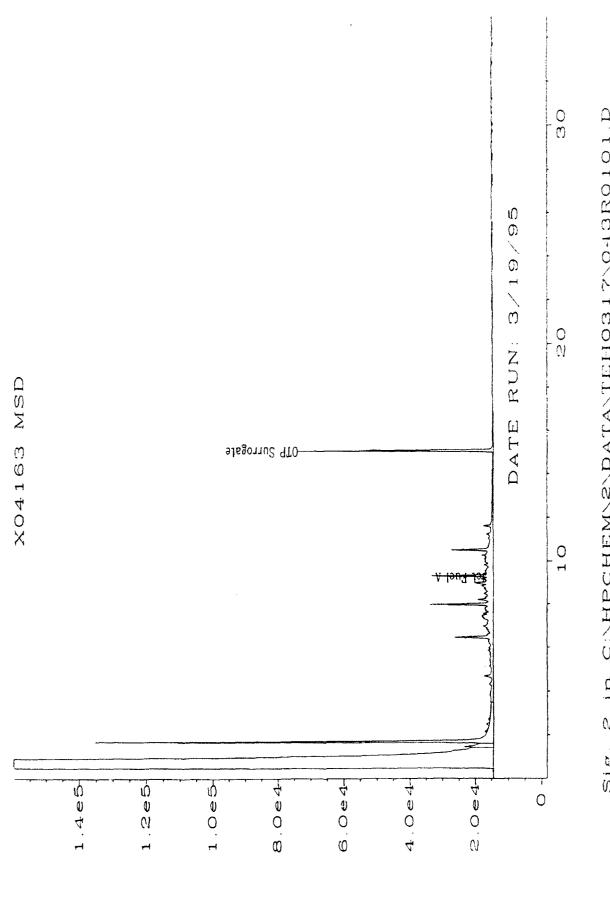
Comments:

NA = Not analyzed/not applicable.

Values reported in ug/mL in the liquid extract.

W.





2 in CNHPCHEMN2NDATANTEH0317N043R0101.D Sig

*

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: 24MP-7(2-4)

Client Project No.

: 722450.21020/Mac D

Lab Sample No.

: X04163

Lab Project No.

: 95-0819

Date Sampled Date Received

: 3/10/95-3/11/95 : 3/14/95 EPA Method No. Matrix

: 5030/8015 Mod : Soil

Date Prepared

: 3/15/95

Method Blank

: MB031595

Date Analyzed : 3/15/95-3/16/95

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
•	(mg/Kg)	(mg/Kg)	(mg/Kg)	%REC	%REC
Gasoline	5.00	0.00	5.33	107	60-140

Compound	Spike Added	MSD Concentration	MS	RPD		⊒C mits
Compound	(mg/L)	(mg/L)	%REC		RPD	%REC_
Gasoline	5.00	4.97	99	7.0	30	60-140

* = Valu	es outside	of QC limits.
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RPD:

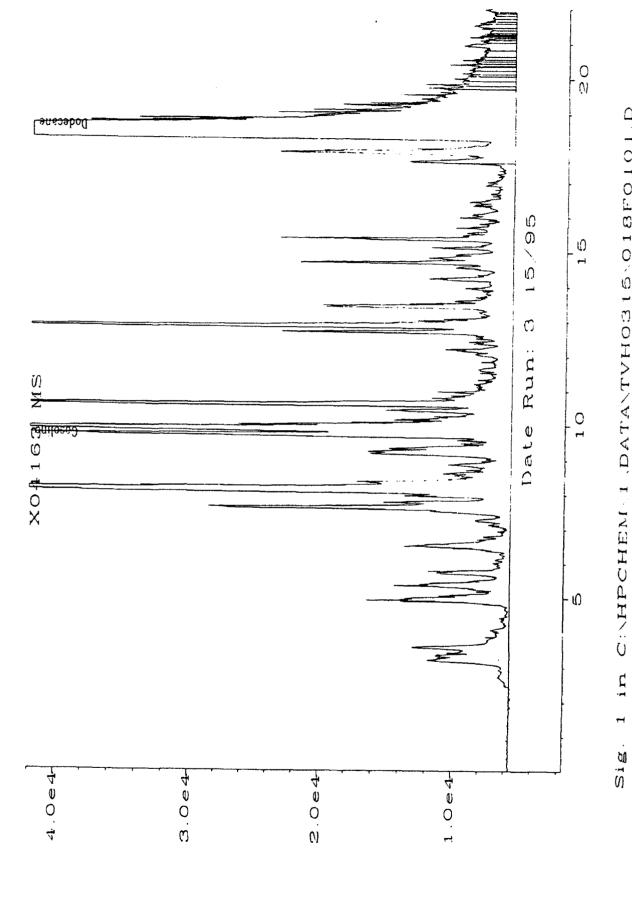
0 out of (1) outside limits.

Spike Recovery:

0 out of (2) outside limits.

Comments:

NA = Not analyzed/not applicable.

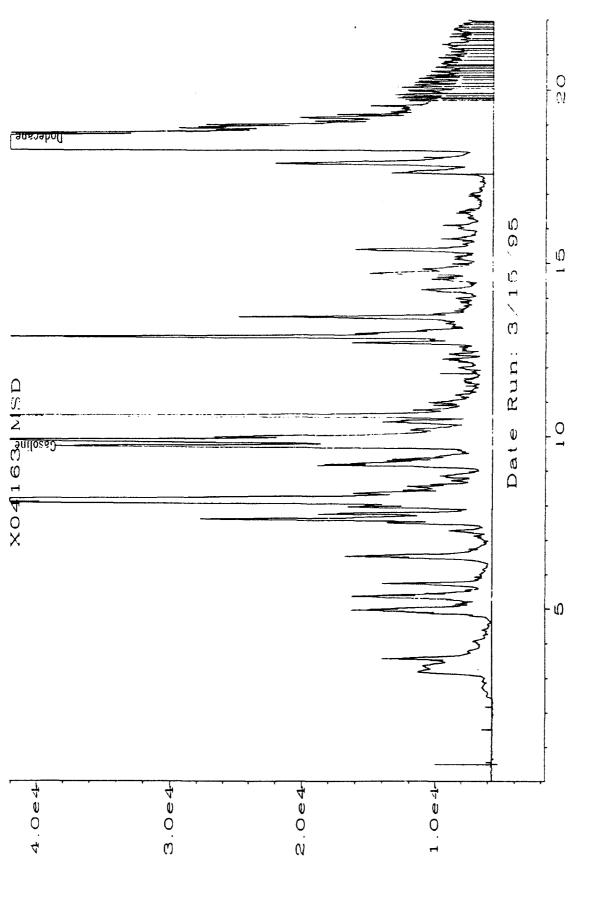


in C:\HPCHEM:1\DATA\TVHO316\018F0101\D

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③

(8)



O19F0101.D C:\HPCHEM\1\DATA\TVH0315 in Sig. 1

(4)

③

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Soil Matrix Spike/Matrix Spike Duplicate Data Report

Client Project No.

: 722450.21020

Client Sample No.

: 24MP-7(2-4)

MacDill

Lab Sample No.

Date Sampled

: X04163 : 3/10/95 Lab Project No. EPA Method No.

: 95-0819 : 8020

Date Received Date Prepared : 3/10/95 : 3/14/95 : 3/16/95

Matrix

: Soil

Date Analyzed

: 3/16/95

Lab File Number(s)
Method Blank

: BX2031615 : MB031695

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20	0.0	18.4	92	65-121
Toluene	20	0.0	18.7	94	69-117
Ethyl Benzene	20	0.0	18.8	94	68-118
m/p-Xylene	40	0.0	41.3	103	66-116
o-Xylene	20	0.0	18.8	94	73-117
Chlorobenzene	20	0.0	18.2	91	65-121
1,3,5-TMB	20	0.0	18.9	95	65-121
1,2,4-TMB	40	0.0	36.3	91	65-121
1,2,3-TMB	40	0.0	33.4	84	65-121
1,2,3,4-TeMB	20	0.0	17.3	87	65-121

	Spike	MSD				ac
Compound	Added	Concentration	MS	RPD	Limits	
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20	17.7	89	3.9	17.4	65-121
Toluene	20	18.0	90	3.8	15.8	69-117
Ethyl Benzene	20	18.2	91	3.2	11.9	68-118
m/p-Xylene	40	39.8	100	3.7	15.4	66-116
o-Xylene	20	17.9	90	4.9	13.2	73-117
Chlorobenzene	20	17.5	88	3.9	17.4	65-121
1,3,5-TMB	20	18.1	91	4.3	17.4	65-121
1,2,4-TMB	40	33.9	85	6.8	17.4	65-121
1,2,3-TMB	40	32.8	82	1.8	17.4	65-121
1,2,3,4-TeMB	20	15.4	77	12	17.4	65-121

* = Values	outside	of QC	limits.
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RPD:

0 out of (10) outside limits.

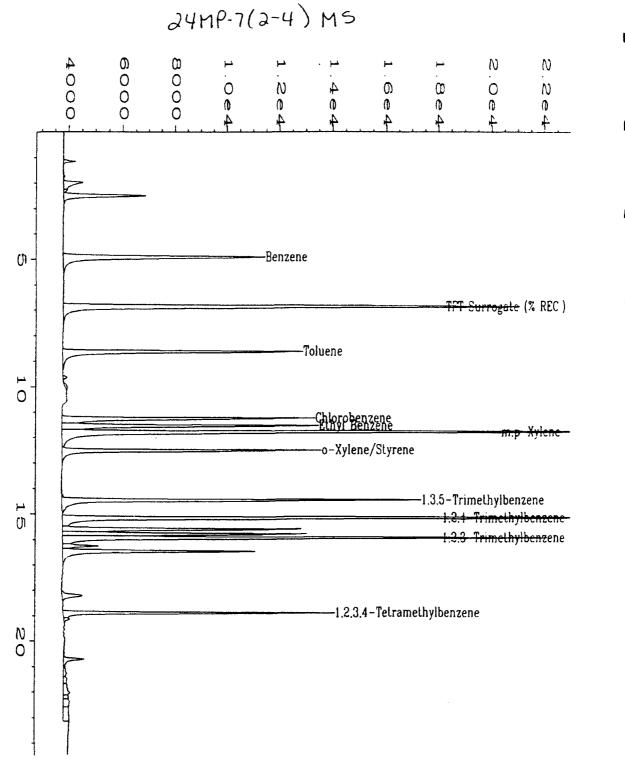
Spike Recovery:

0 out of (20) outside limits.

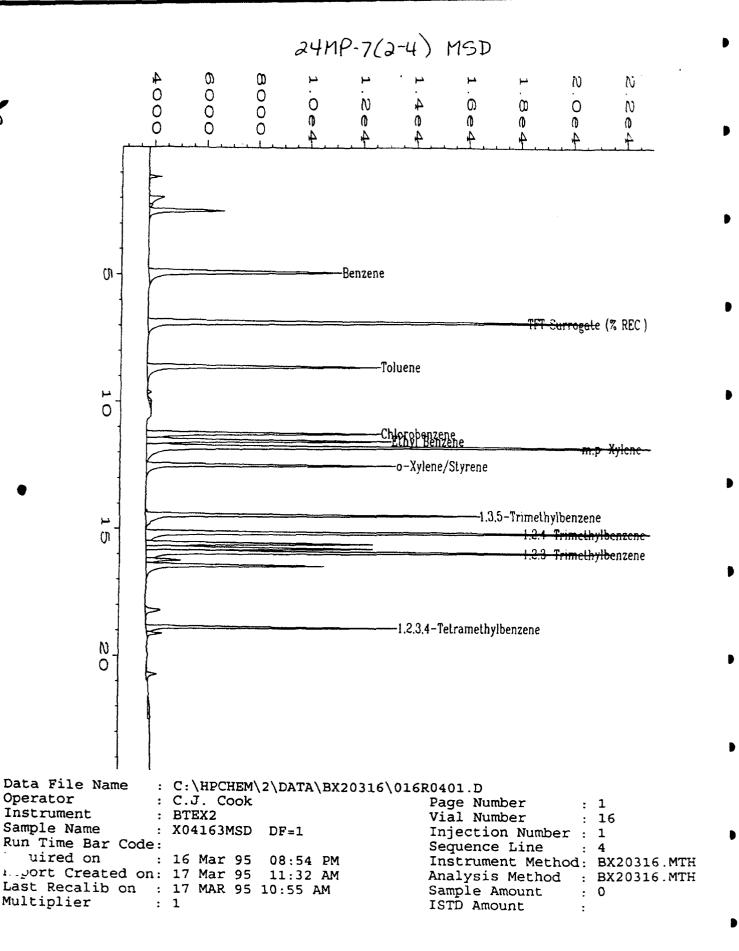
Comments:

CJC

KAR



Data File Name : C:\HPCHEM\2\DATA\BX20316\015R0401.D Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number : 15 Sample Name : X04163MS DF=1 Injection Number: 1 Run Time Bar Code: Sequence Line Acquired on : 16 Mar 95 08:11 PM Instrument Method: BX20316 Report Created on: 17 Mar 95 11:31 AM Analysis Method : BX20316.... Last Recalib on : 17 MAR 95 10:55 AM Sample Amount : 0 Multiplier ISTD Amount



BTEX Data Report

Client Sample Number	: Rinsate Blank	Client Project No.	: 722450.21020 MacDill
Lab Sample Number	: X04171	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Water
Date Analyzed	: 3/16/95	Lab File No.	: BX2031620
Methanol Extract?	: No	Method Blank No.	: MB031695

	Sample					
Compound Name	Cas Number	Concentration	PQL			
		ug/L	ug/L			
Benzene	71-43-2	U	4			
Toluene	108-88-3	U	4			
Ethyl Benzene	100-41-4	U	4			
Total Xylene	1330-20-7	U	4			
Chlorobenzene	108-90-7	U	4			
1,3,5-trimethylbenzene	108-67-8	U	4			
1,2,4-trimethylbenzene	95-63-6	U	4			
1,2,3-trimethylbenzene	526-73-8	U	4			
1,2,3,4-tetramethylbenzene	488-23-3	U	4			

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 75%

QC Reporting Limits : 70%-131%

QUALIFIERS:

E = Extrapolated value

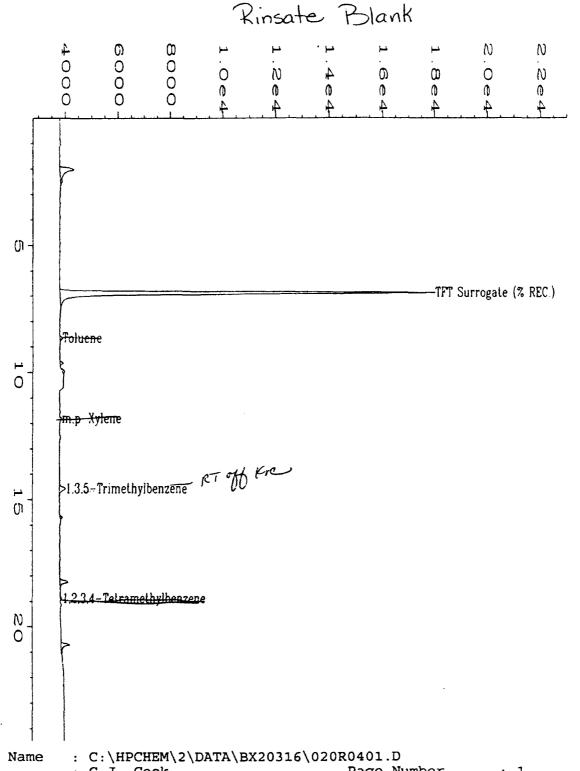
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



Data File Name Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number : X04171 DF=1 Sample Name Injection Number: 1 pun Time Bar Code: Sequence Line : 16 Mar 95 11:50 PM Instrument Method: BX20316.MTH Analysis Method : BX20316.MTH meport Created on: 17 Mar 95 11:33 AM Last Recalib on : 17 MAR 95 10:55 AM Sample Amount Multiplier ISTD Amount

pm 3/28/95

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Trip Blank		MacDill
Lab Sample Number	: X04172	Lab Project No.	: 95-0819
Date Sampled	: 3/11/95	Dilution Factor	: 1.00
Date Received	: 3/14/95	Method	: 8020
Date Extracted/Prepared	: 3/16/95	Matrix	: Water
Date Analyzed	: 3/17/95	Lab File No.	: BX2031621
Methanol Extract?	: No	Method Blank No.	: MB031695

	Sample			
Compound Name	Cas Number	Concentration	PQL	
		ug/L	ug/L	
Benzene	71-43-2	U	4	
Toluene	108-88-3	U	4	
Ethyl Benzene	100-41-4	U	4	
Total Xylene	1330-20-7	U	4	
Chlorobenzene	108-90-7	U	4	
1,3,5-trimethylbenzene	108-67-8	U	4	
1,2,4-trimethylbenzene	95-63-6	U	4	
1,2,3-trimethylbenzene	526-73-8	U	4	
1,2,3,4-tetramethylbenzene	488-23-3	. U	4	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene : 74%

QC Reporting Limits : 70%-131%

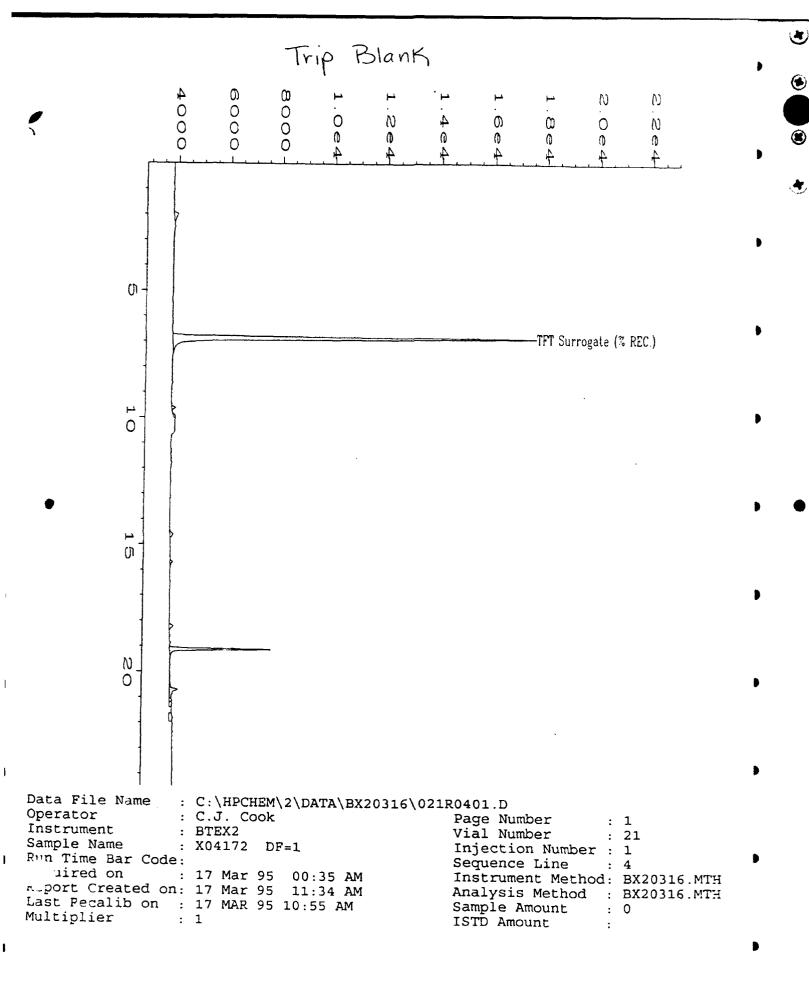
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

MacDill

Met d Blank Number

: MB031695

Date xtracted/Prepare

: 3/16/95

Lab Project No.

: 95-0819 : 1.00

Date , halyzed

: 3/16/95

Dilution Factor

: 8020

Method Matrix

: Water

Lab File No.

: BX2031609

	Sample			
Compor d Name	Cas Number	Concentration	PQL	
		ug/L	ug/L	
Benzene	71-43-2	U	4	
Toluene	108-88-3	U	4	
Ethyl E nzene	100-41-4	U	4	
Total :/yiene	1330-20-7	U	4	
Chic benzene	108-90-7	U	4	
1,3,£ imethylbenzene	108-67-8	U	4	
1,2,4 nethylbenzene	95-63-6	U	4	
1,2,3- lethylbenzene	526-73-8	U	4	

Note: To al Xylene consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

Surrogate covery:

a,a,a,-Triflu otoluene

1,2,3,4 tramethylbenzene

97%

488-23-3

QC Reportin Limits

: 70%-131%

QUALIFIERS:

E = Extrapo ed value

U = Compor I analyzed for, but not detected.

B = Compou found in blank and sample. Compare blank and sample data.

J = Indicates | 1 estimated value when the compound is detected, but is below the Practical

Quantita n Limit (PQL).

PQL = Practic Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the

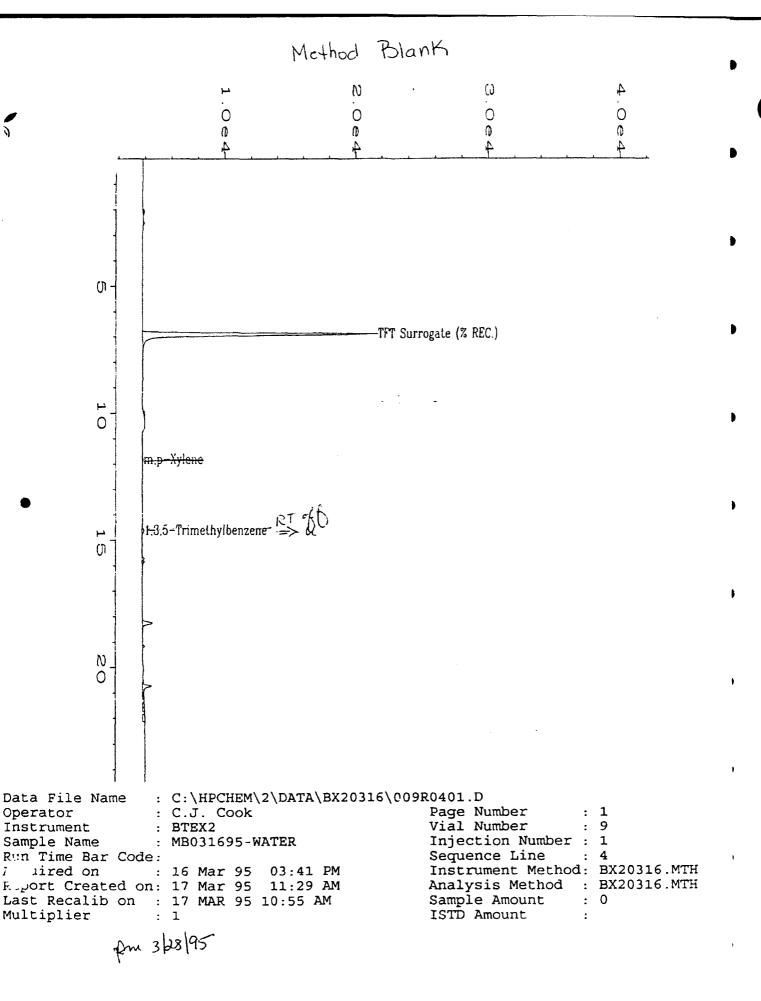
Method Entection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not ave ble

Approved^c

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Analyst



BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

MacDill

Method Blank Number Date Extracted/Prepared : MB031795

Lab Project No.

: 95-0819

Date Analyzed

: 3/17/95

: 1.00

: 3/17/95

Dilution Factor

Method Matrix

: 8020

: Water

Lab File No.

: BX2031709

Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4
Toluene	108-88-3	U	4
Ethyl Benzene	100-41-4	υ	4
Total Xylene	1330-20-7	U	4
Chlorobenzene	108-90-7	U	4
1,3,5-trimethylbenzene	108-67-8	U	4
1,2,4-trimethylbenzene	95-63-6	U	4
1,2,3-trimethylbenzene	526-73-8	U	4
1,2,3,4-tetramethylbenzene	488-23-3	U	4

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

90%

QC Reporting Limits

: 70%-131%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

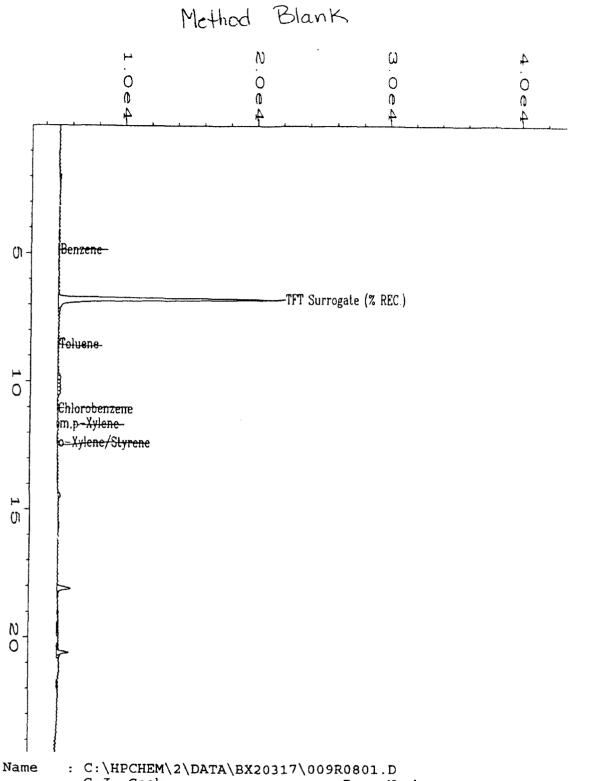
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



Data File Name Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number Sample Name : MB031795-WATER Injection Number: 1 n Time Bar Code: Sequence Line : 8 quired on : 17 Mar 95 05:27 PM Instrument Method: BX20317.MTH Report Created on: 17 Mar 95 05:52 PM Analysis Method : BX20317.MTH Last Recalib on : 17 Mar 95 Multiplier : 1 04:23 PM Sample Amount Multiplier ISTD Amount

Dn 3/28/95

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS031795

Client Project No.

: 722450.21020

MacDill : 95-0819

Date Extracted/Prepared
Date Analyzed

: 3/17/95 : 3/17/95 Lab Project No.
Dilution Factor

: 1.00

Method Matrix : 602

Matrix

: Water

Lab File No.

: BX2031710

LCS

	LCS			
Compound Name	Cas Number	Concentration	QC Limit	
		ug/L	ug/L	
Benzene	71-43-2	17.3	12-24	
Toluene	108-88-3	16.3	13-22	
Ethyl Benzene	100-41-4	16.0	13-24	
m,p-Xylene	NA	16.2	13-24	
o-Xylene	95-47-6	15.9	13-24	
Chlorobenzene	108-90-7	16.1	14-23	
1,3,5-trimethylbenzene	108-67-8	16.2	12-24	
1,2,4-trimethylbenzene	95-63-6	12.7	12-23	
1,2,3-trimethylbenzene	526-73-8	14.0	15-25	
1,2,3,4-tetramethylbenzene	488-23-3	15.4	NA	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

90%

QC Reporting Limits

: 69%-131%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

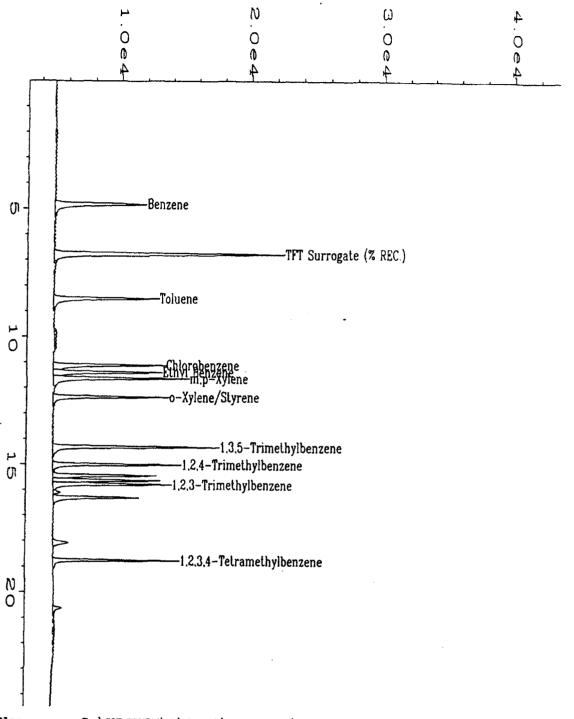
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Aggraved



Data File Name : C:\HPCHEM\2\DATA\BX20317\010R0801.D Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number : 10 Sample Name : LCS031795 Injection Number: 1 Time Bar Code: Sequence Line gired on : 17 Mar 95 06:11 PM Instrument Method: BX20317.MTH Report Created on: 17 Mar 95 06:36 PM Analysis Method : BX20317.MTH Last Recalib on : 17 Mar 95 04:23 PM Sample Amount Multiplier : 1 ISTD Amount

BTEX Data Report Laboratory Control Sample (LCS)

Client Project No.

: 722450.21020

LCS Number

: LCS031695

MacDill

Date Extracted/Prepared

: 3/16/95

Lab Project No.

: 95-0819

Date Analyzed

: 3/16/95

Dilution Factor

: 1.00

Method

: 602 : Water

Lab File No.

Matrix

: BX2031610

LCS

	LCS			
Compound Name	Cas Number	Concentration	QC Limit	
		ug/L	ug/L	
Benzene	71-43-2	18.4	12-24	
Toluene	108-88-3	17.8	13-22	
Ethyl Benzene	100-41-4	18.0	13-24	
m,p-Xylene	NA	16.7	13-24	
o-Xylene	95-47-6	17.4	13-24	
Chlorobenzene	108-90-7	17.9	14-23	
1,3,5-trimethylbenzene	108-67-8	18.8	12-24	
1,2,4-trimethylbenzene	95-63-6	14.2	12-23	
1,2,3-trimethylbenzene	526-73-8	16.2	15-25	
1,2,3,4-tetramethylbenzene	488-23-3	17.8	NA	

Note: Total Xylene consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery:

a,a,a,-Trifluorotoluene

96%

QC Reporting Limits

: 69%-131%

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

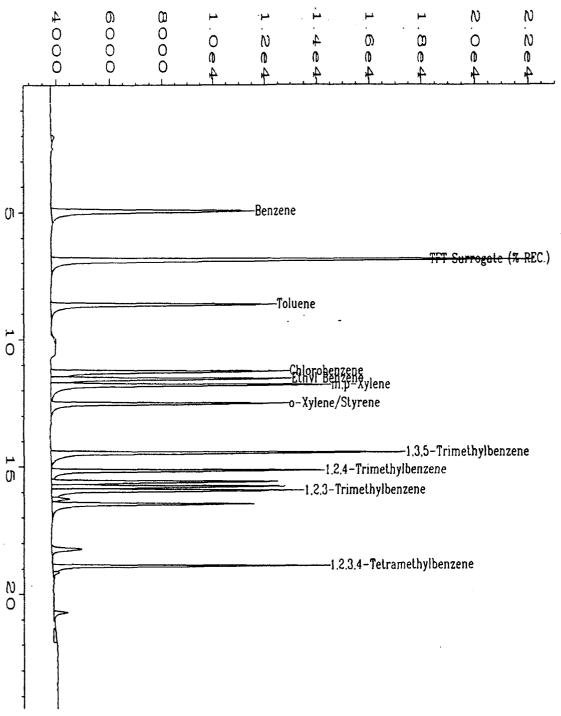
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quan 'taxon Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

(4)



: C:\HPCHEM\2\DATA\BX20316\010R0401.D Data File Name Page Number : C.J. Cook Operator Vial Number : 10 Instrument : BTEX2 Injection Number: 1 Sample Name : LCS031695 : 4 Sequence Line P"n Time Bar Code: Instrument Method: BX20316.MTH uired on : 16 Mar 95 04:26 PM Analysis Method : BX20316.MTH Report Created on: 17 Mar 95 11:29 AM Sample Amount : 0 Last Recalib on : 17 MAR 95 10:55 AM Multiplier ISTD Amount : 1

TOTAL VOLATILE HYDROCARBONS (TVH)

Date Sampled

: 3/10/95-3/11/95 : 3/14/95

Client Project Number Lab Project Number

: 722450.21020/Mac Dill

Date Received Date Prepared

: 3/15/95 : 3/15/95-3/16/95 Matrix

: 95-0819 : Soil

Date Analyzed

Method Number

: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH** mg/Kg	MDL** mg/Kg
MB031595	Method Blank	100%	U	0.1
X04163	24MP-7(2-4) J	115%	U	0.12
X04164	24MP-8(2-4)	116%	U	0.17
X04165	24MP-9(3-5)	132%	0.17	0.12
X04166	24MP-9(9-11) ~	124%	U	0.12
X04167	24MP-10(2-4)	126%	U	0.12
X04168	24MW-6(2-4)	127%	U	0.13
X04169	24MW-6(9-11)	122%	U	0.12
X04170	175MP-1(3-5)	130%	U	0.12
X04170 DUP	175MP-1(3-5)	119%	U	0.12

QUALIFIERS

U = TVH analyzed for but not detected.

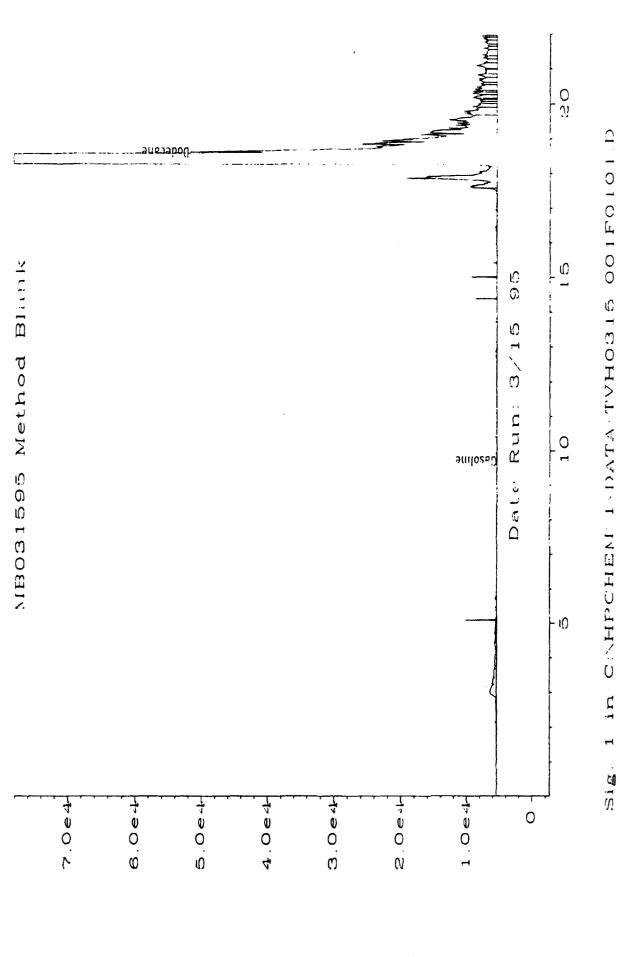
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

MDL = Method Detection Limit

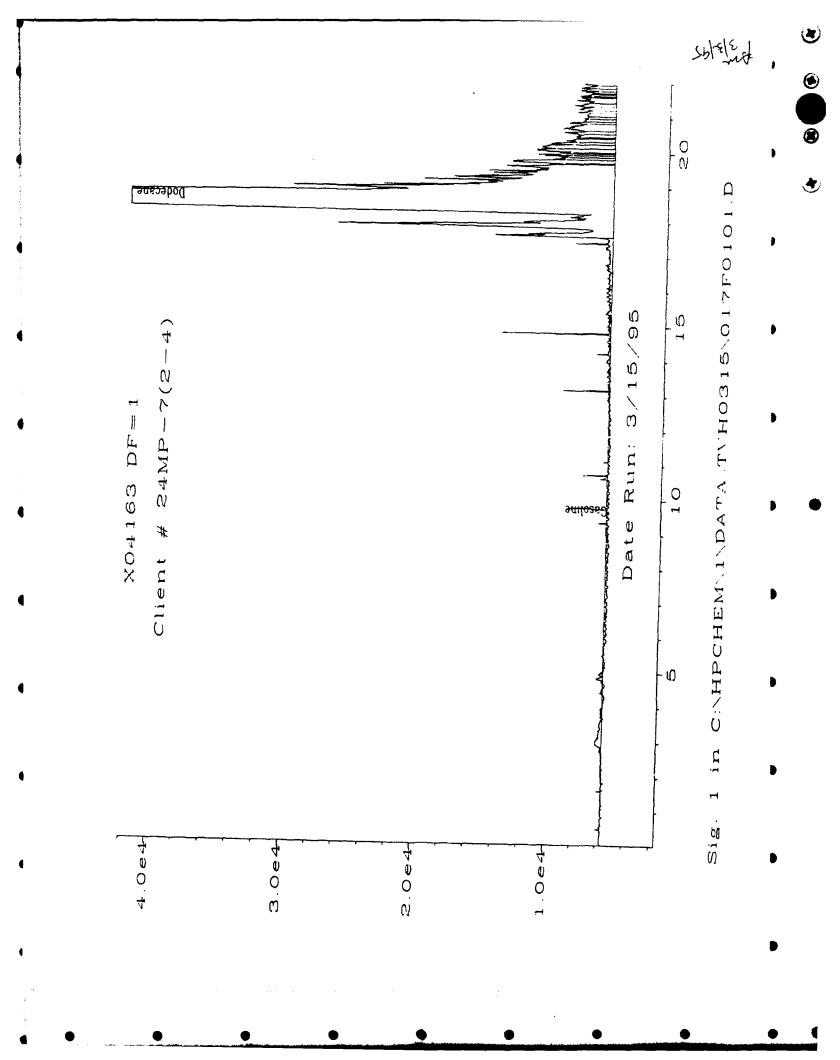
** = All sample results and MDLs are reported on a dry weight basis.

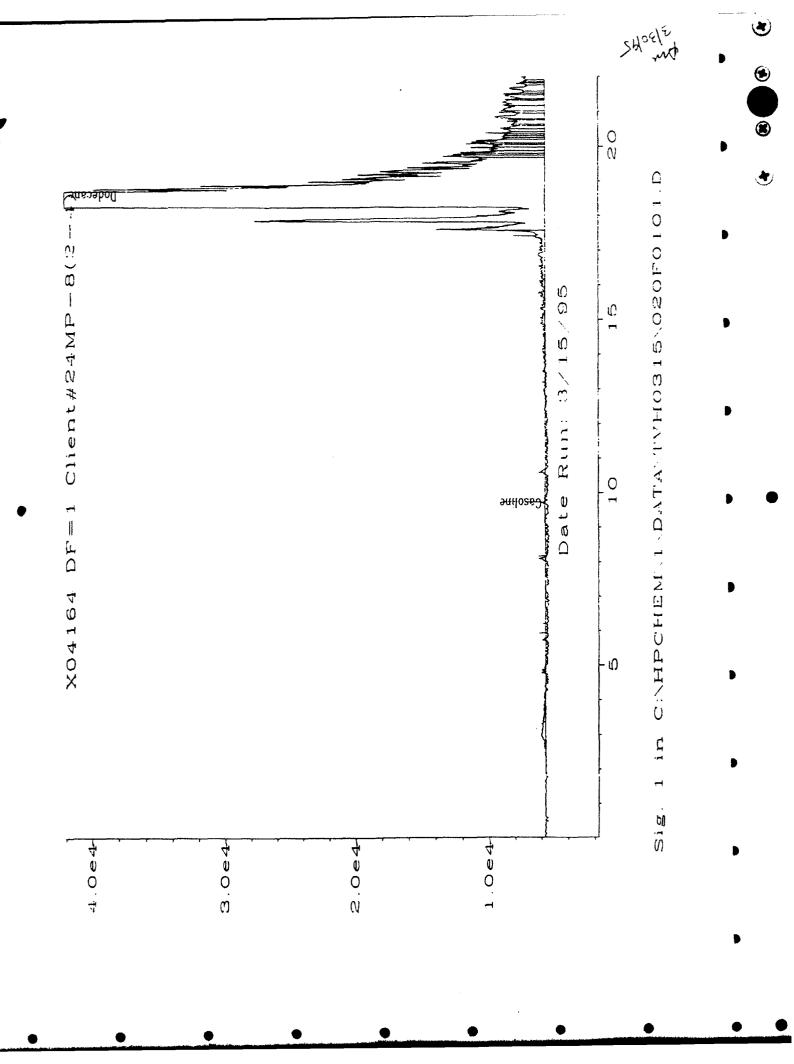
Analyst

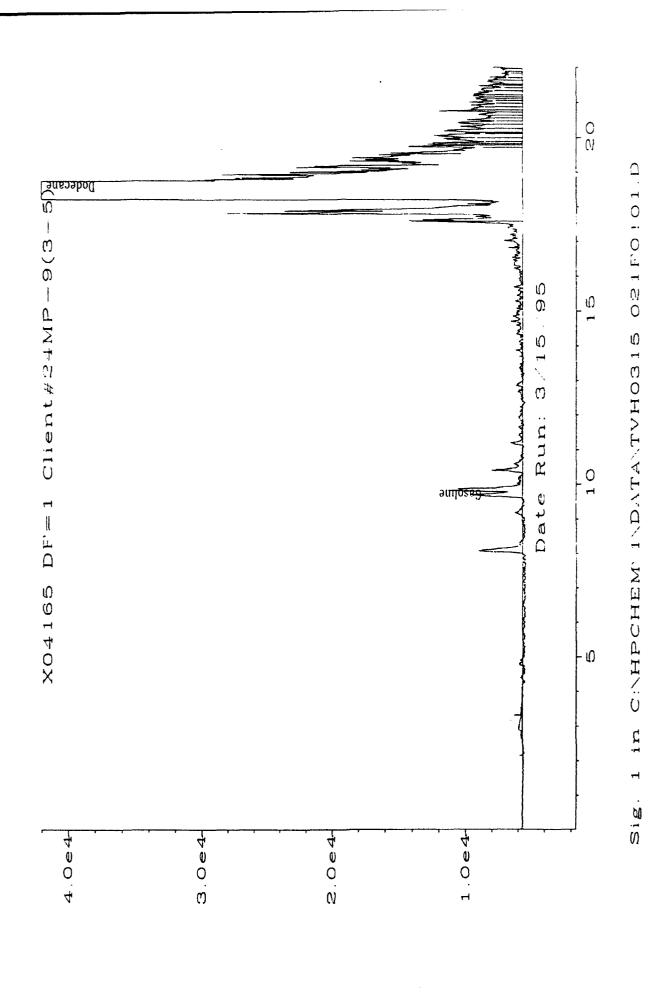


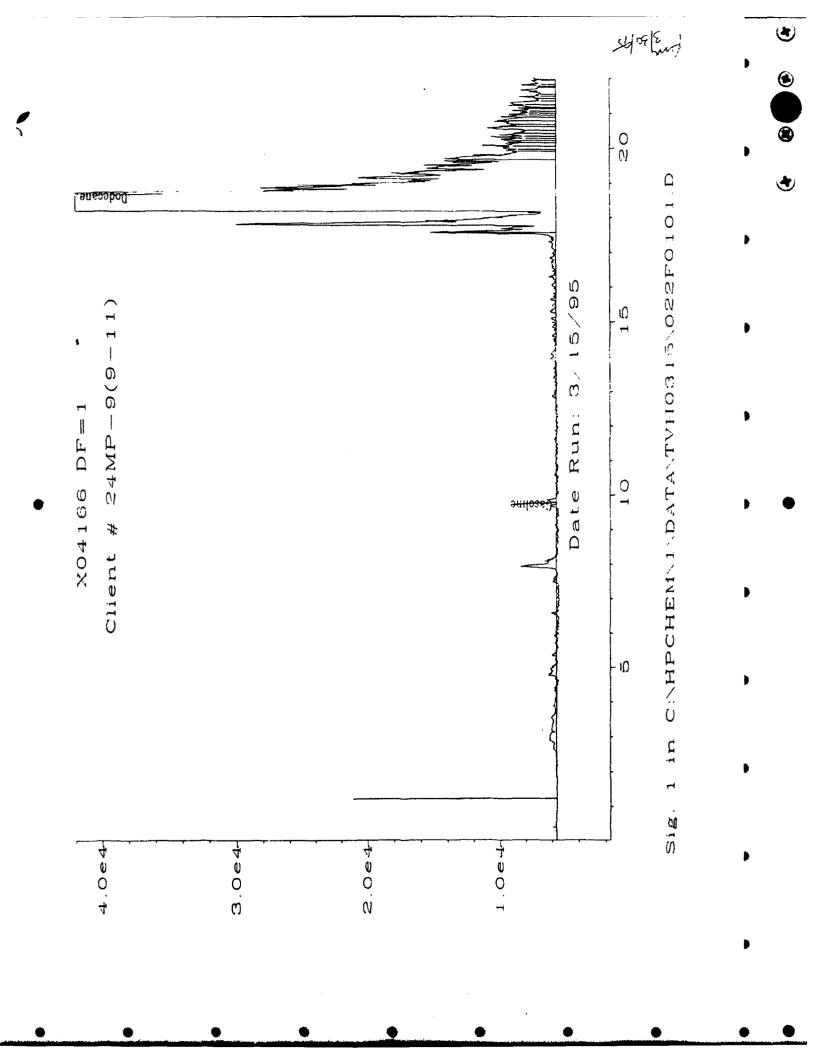
in CAMPCHEM INDATA TVH0315 001F0101.D

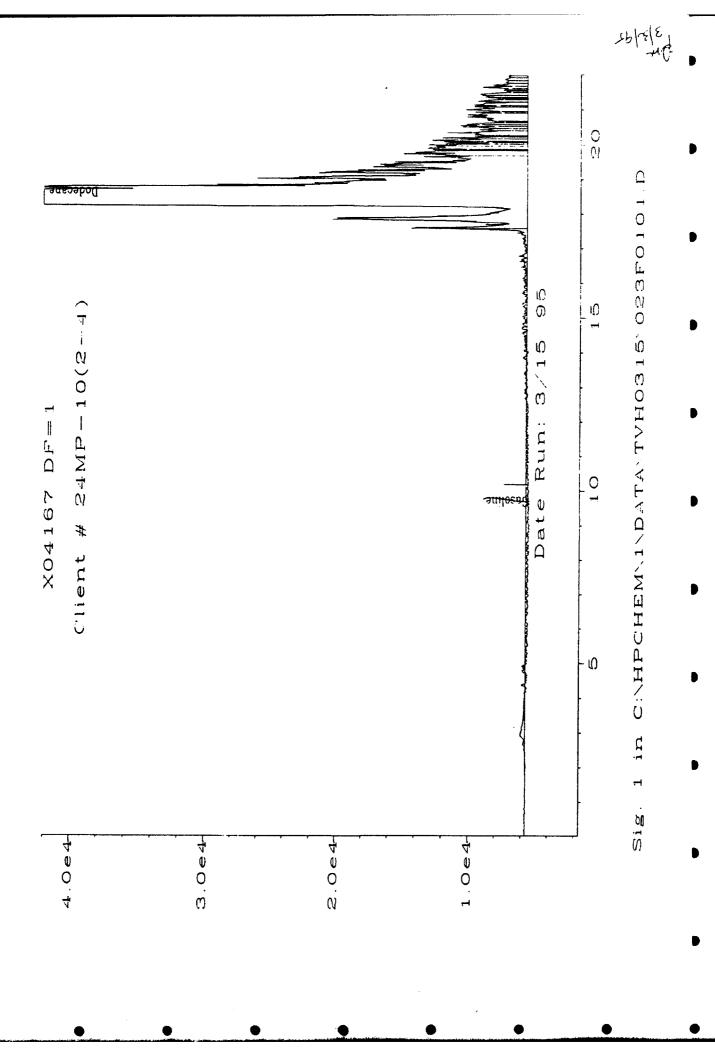
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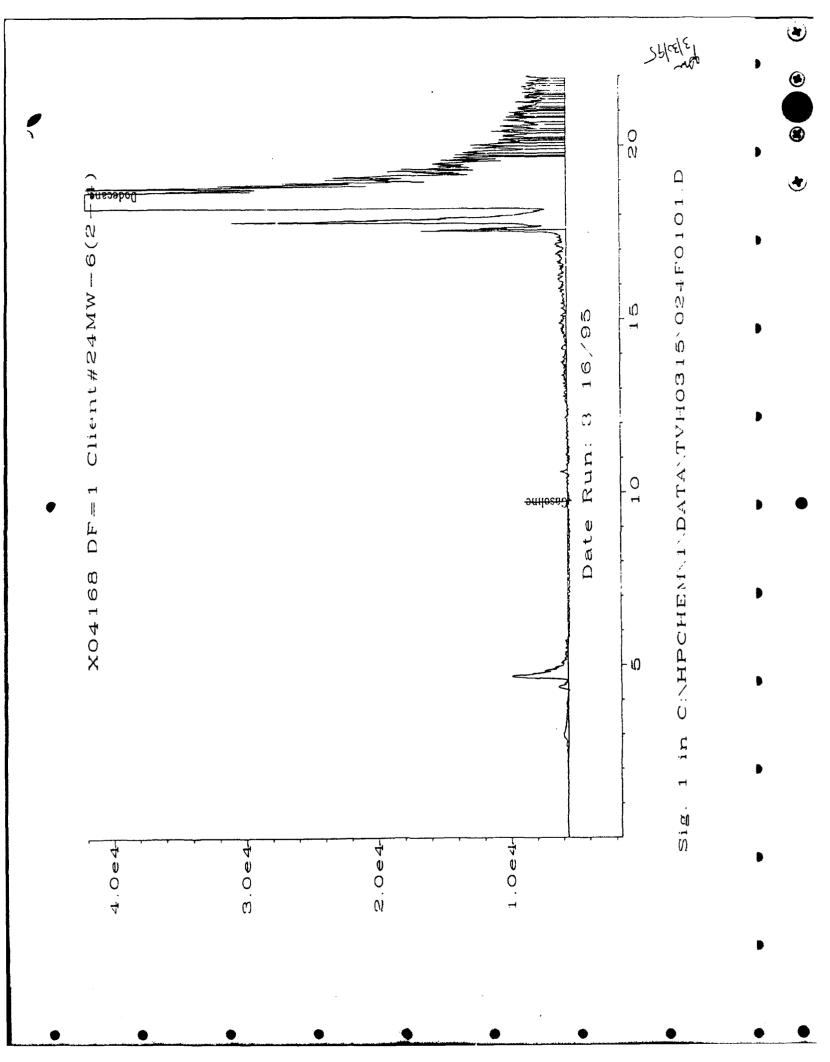


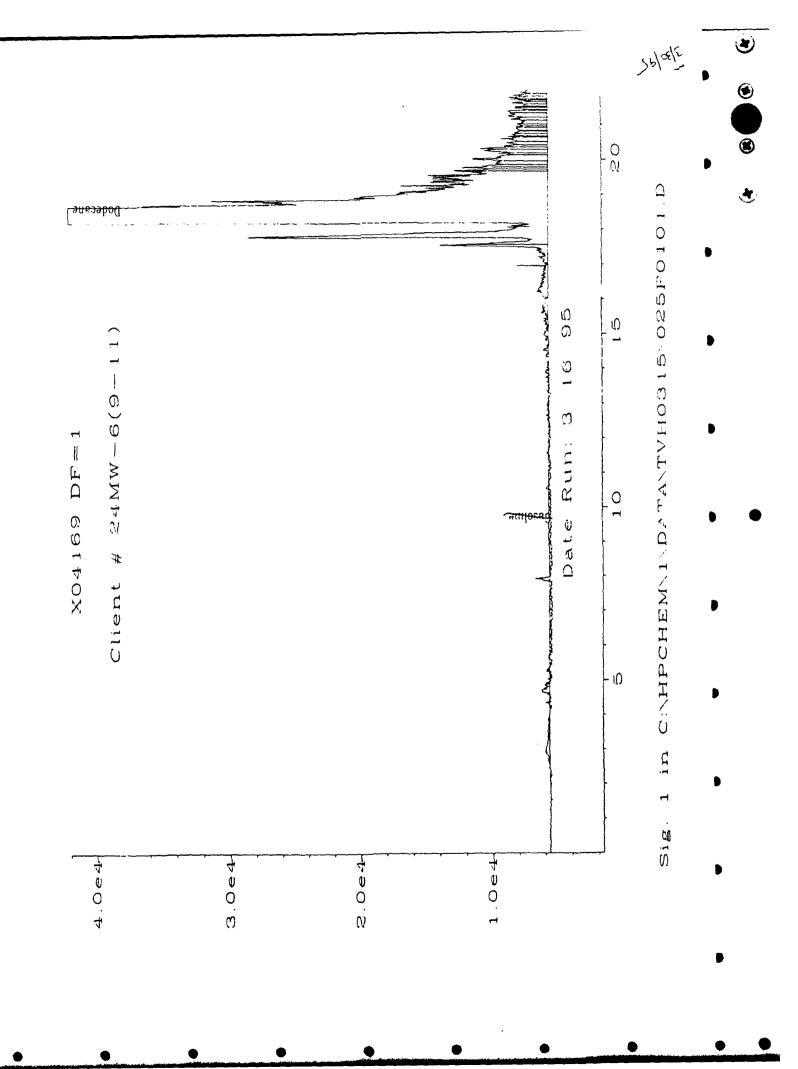






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EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH) Jet Fuel Boiling Range

Date Sampled

: 3/10/95,3/11/95

Client Project Number

722450.21020/MAC DILL

12

12

Date Received

: 3/14/95

Lab Project Number

: 95-0819

Date Prepared

: 3/15,17/95

Matrix

: SOIL

Date Analyzed

: 3/18,19,22/95

Method Number

: 3500/8015M

Evergreen Sample #	Client Sample #	Surrogate Recovery	TEH * mg/Kg	RL* mg/Kg
SB031595	SOIL METHOD BLANK	81%	U	10
SB031795	SOIL METHOD BLANK	77%	U	10
X04163	24MP-7(2-4)	73%	U	12
X04164	24MP-8(2-4)	76%	U	12
X04165	24MP-9(3-5)	77%	U	12
X04166	24MP-9(9-11)	78%	U	12
X04167	24MP-10(2-4)	77%	U	12
X04168	24MW-6(2-4)	84%	U	13

81%

81%

QUALIFIERS

X04169

X04170

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

24MW-6(9-11)

175MP-1(3-5)

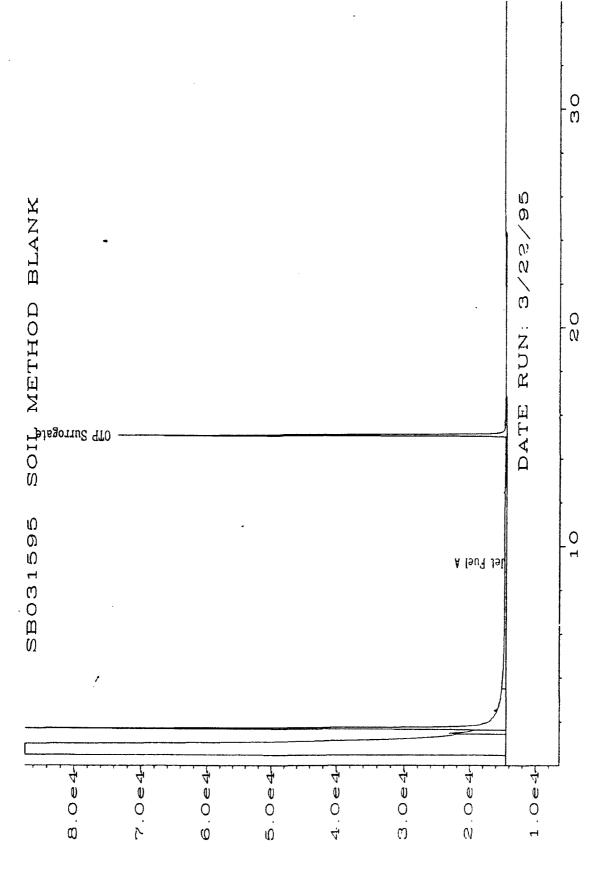
E = Extrapolated value.

RL = Reporting Limit

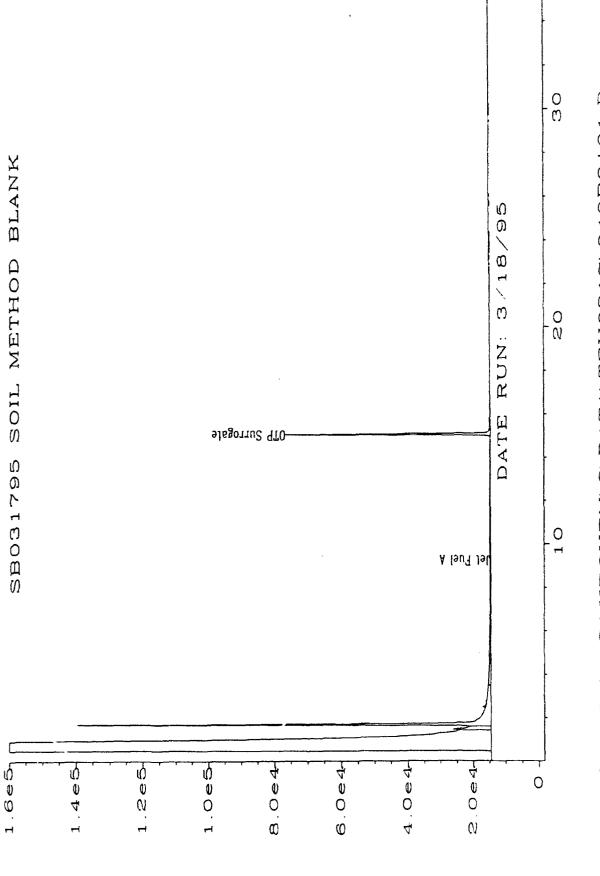
* = Based on dry weight

Analyst

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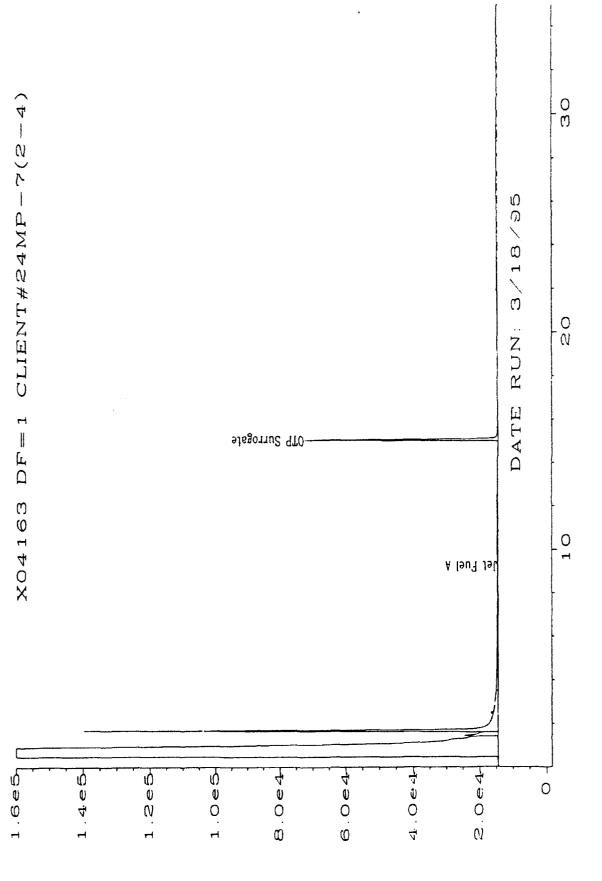
2 in C:\HPCHEM\2\DATA\TEH0317\040R0101.D Sig.

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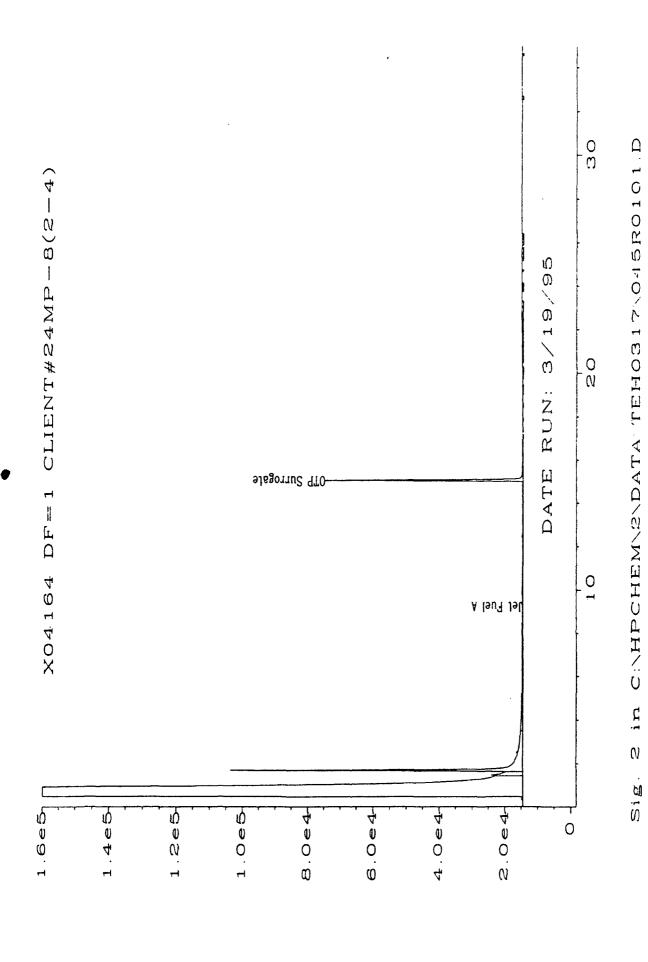


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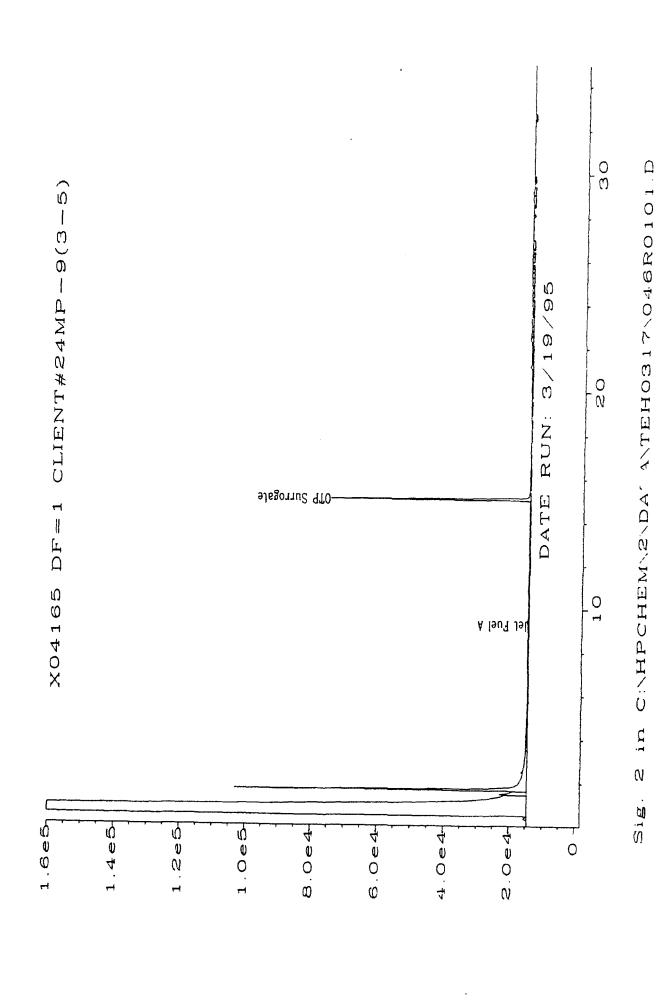
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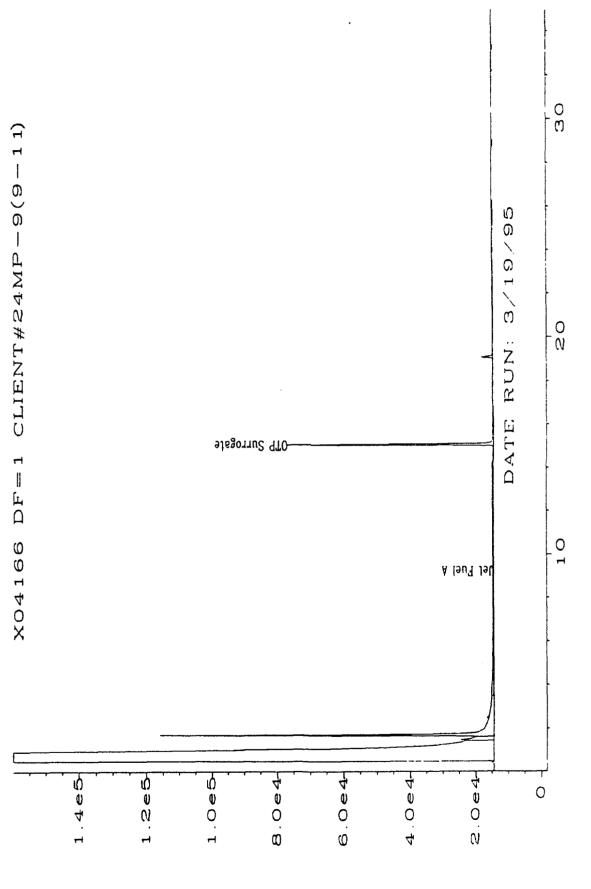
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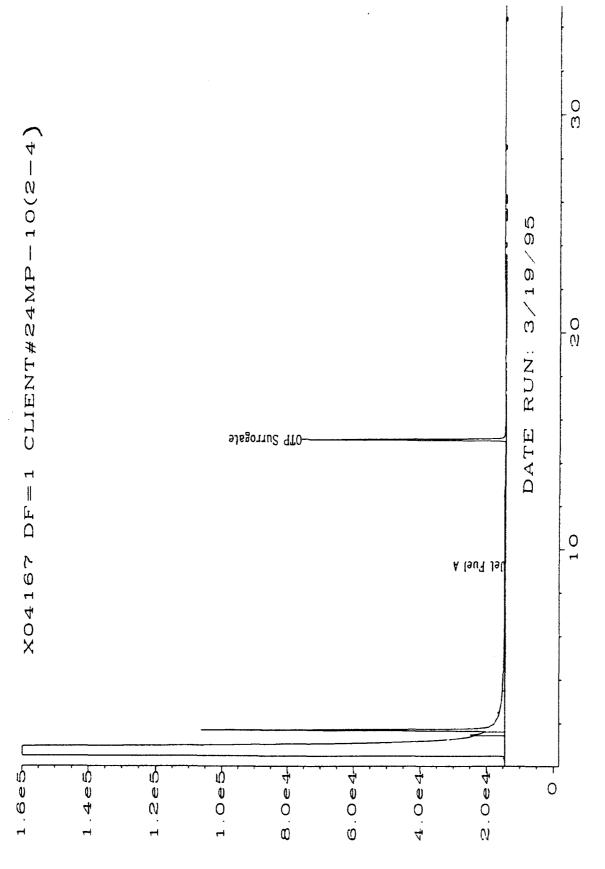
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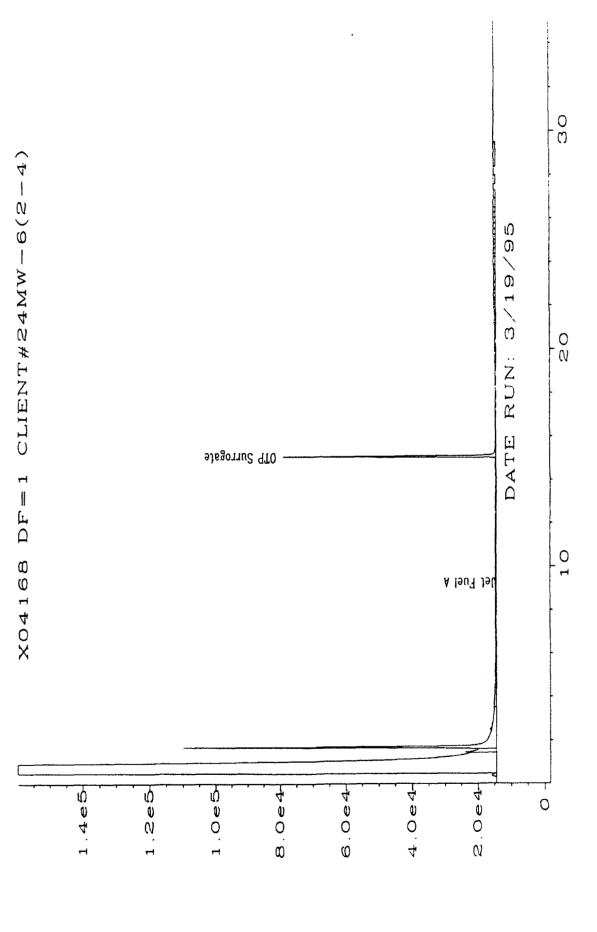
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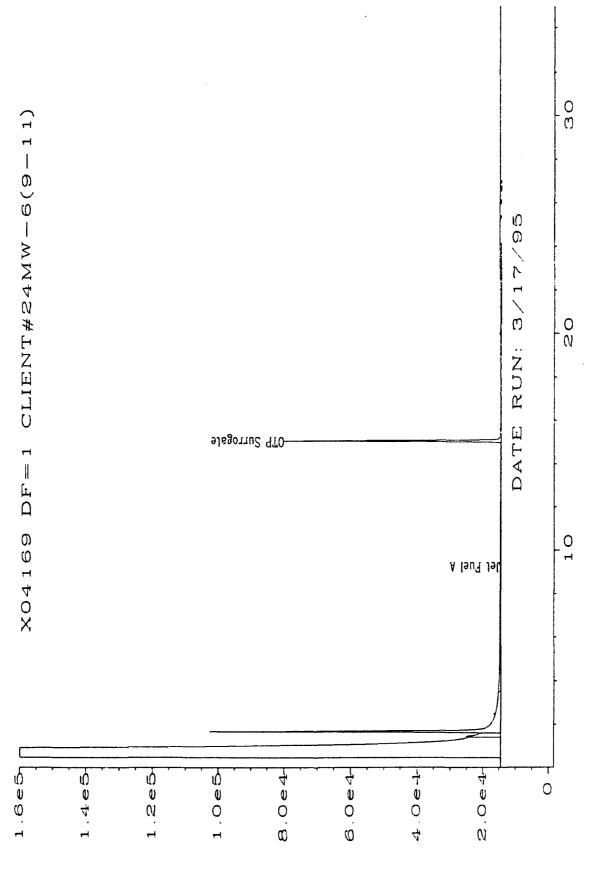
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EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH) Laboratory Control Sample (LCS)

LCS Number

: LCS031595

Client Project Number

: 722450.21020/MAC DILL

Date Prepared

: 3/15/95

Lab Project Number

: 95-0819 : SOIL

Date Analyzed Sequence Number : 3/18/95 : TEH0317021 Matrix Method Number

: 3500/Mod. 8015

 Compound Name
 Theoretical Concentration mg/L
 Concentration mg/Kg
 QC Limit mg/Kg

 JET FUEL
 1000
 960
 750-1750

QUALIFIERS

U = TEH analyzed for but not detected.

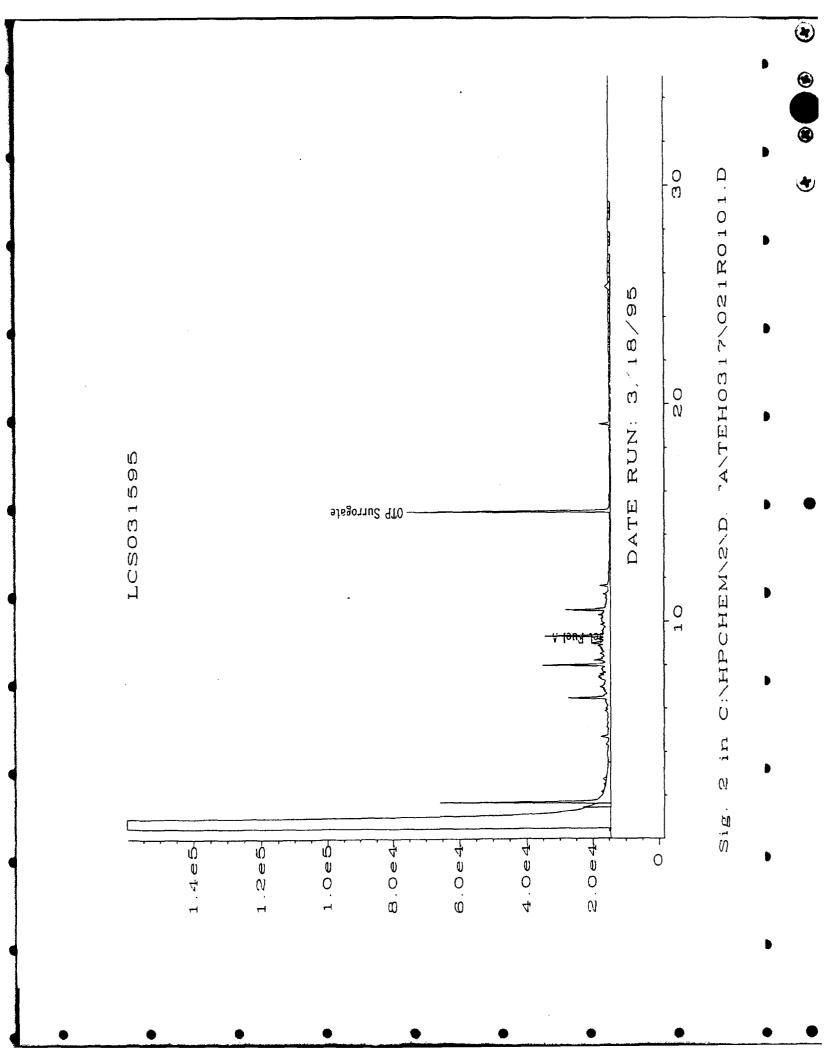
B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303)425-6021

Miscellaneous Analyses

Date Sampled : 3/10,11/95 Date Received : 3/14/95 Client Project ID. : 722450.21020

Lab Project No. : 95-0819
Matrix : Soil
Method : EPA 160.3 Date Prepared: 3/15/95 Date Analyzed: 3/15/95 Method

Evergreen <u>Sample</u> #	Client <u>Sample ID</u>	Moisture (%)
X04163	24MP-7 (2-4)	17.2
X04164	24MP-8 (2-4)	18.7
X04165	24MP-9 (3-5)	18.6
X04166	24MP-9 (9-11)	18.3
X04167	24MP-10 (2-4)	16.7
X04168	24MW-6 (2-4)	20.8
X04169	24MW-6 (9-11)	18.0
X04170	175MP-1 (3-5)	14.4

Analyst

Approved

0819tm.4



Quality Analytical Services Since 1936 4630 Indiana Street - Colden, CO 80403

NON-CLP ANALYSIS RESULTS

Date:

03/24/95

Lab Name:

Huffman Labs

Client: Evergreen Analytical

Contact:

Sue Zeller

Contact: Patty McClellan

Sample Matrix:

Huffman Lab #: 143595 soil

Instrume	Method	Sample	Analysis	Prep	Units	Results	Dilution	Element/	Lab	Client	
!	#	Size (g)	Date	Date			Factor	Compound	ID#	Smp#	
#	Leco CR12	2.195	03/23/95	NA	%	< 0.05	NA	TC	14359501	7555-4 (3-4)	
#	Leco CR12	2.067	03/23/95	NA	%	< 0.05	NA	TC	14359501		
#	Leco CR12	2.154	03/23/95	NA	%	< 0.05	NA	TC	14359502	7588-6 (3-5)	
#	Leco CR12	3.332	03/23/95	NA	%	< 0.05	NA	TC	14359503	75MP-7 (4-6)	
#	Leco CR12	2.888	03/23/95	NA	%	< 0.05	NA	TC	14359504	7SMP-17 (4-6)	
#	Leco CR12	3.555	03/23/95	NA	%	< 0.05	NA	TC	14359505	24MP+7 (2-4)	
#	Leco CR12	3.331	03/23/95	NA	%	0.21	NA	TC	14359506	24MP-3 (3-5)	
#	Leco CR12	2.908	03/23/95	NA	%	0.13	NA	TC	14359507	24MP-4 (3-5)	
#	Leco CR12	3.093	03/23/95	NA	%	2.21	NA	TC	14359508	24MP-6 [4-6]	
#	Leco CR12	3.394	03/23/95	NA	%	0.73	NA	TC	14359509	24MP-16 (4-6)	
*tower	COU-02	0.111	03/21/95	NA	%	< 0.02	NA	СС	14359501	75SS-4 (3-4)	
"tower	COU-02	0.259	03/21/95	NA	%	< 0.02	NA	CC	14359501		
"to"	C0U-02	0.185	03/21/95	NA	%	< 0.02	NA	CC	14359502	7555-6 (3-5)	
* t c	COU-02	0.248	03/21/95	NA	%	< 0.02	NA	CC	14359503	75MP-7 (4-6)	
"towe	COU-02	0.221	03/21/95	NA	%	< 0.02	NA	cc	14359504	75MP-17 (4-6)	
"tower	COU-02	0.127	03/21/95	NA	%	< 0.02	NA	CC	14359505	24MP-7 (2-4)	
*tower	COU-02	0.130	03/21/95	NA	%	< 0.02	NA	CC	14359506	24MP-3 (3-5)	
"tower	CDU-02	0.128	03/21/95	NA	%	< 0.02	NA	cc	14359507	24MP-4 (3-5)	
"tower	COU-02	0.138	03/21/95	NA	%	< 0.02	NA	CC	14359508	24MP-6 (4-6)	
*tower	COU-02	0.165	03/21/95	NA	% جرالح	<0.02	NA	isture CC	14359509	24MP-16 (4-6)	
N	by calc	NA	NA	NA	%	<0.05	NA	тос	14359501		
N,	by calc	NA	NA	NA	%	< 0.05	NA	TOC	14359501		
N.	by c≥c	NA	NA	NA	%	<0.05	NA	TOC	14359502		871
N.	by calc	NA	NA	NA	%	< 0.05	NA	TOC	14359503		
N	by calc	NA_	NA	NA_	%	< 0.05	NA_	тос		75MP-17 (4-6)	
N,	by calc	NA _	NANA	NA		< 0.05 0	NA		14359505 7		819
N,	by calc	NA	NA	NA	%	0.21	NA	TOC		24MP-3 (3-5)	
N/	by calc	NA	NA	NA	%	0.13	NA	TOC	14359507		820
N/	by calc	NA	NA	NA	%	2.21	NA	TOC	14359508		J 2 U
N/	by calc	NA	NA	NA	%	0.73	NA	TOC	14359509	24MP-16 (4-6)	

Samples analyzed and results reported on an as received basis.

Soil samples are not homogeneous.

Values reported below Detection Limits are for reference only.

TC detection limit = 0.05%

CC detection limit = 0.02%

TOC detection limit = 0.05%

The numbers to the left above represent the last four digits of the EAL project number under which the samples were analyzed.

The original report and quality control results are filed with EAL project 95-C Page 1



Quality Analytical Services Since 1936 4630 Indiana Street - Golden, CO 80403

NON-CLP ANALYSIS RESULTS

Date:

03/24/95

Lab Name: Contact:

Huffman Labs

Sue Zeller

Client: Evergreen Analytical

Contact: Patty McClellan

Sample Matrix:

soil

Huffman Lab #: 143595

Instrument	Method	Sample	Analysis	Prep	Units	Results	Dilution	Element/	Lab	Client
ID	#	Size (g)	Date	Date			Factor	Compound	ID#	Smp#
#7	Leco CR12	2.195	03/23/95	NA	%	< 0.05	NA	TC	14359501	75SS-4 (3-4)
#7	Leco CR12	2.067	03/23/95	NA	%	< 0.05	NA	TC	14359501	75SS-4 (3-4)
#7	Laco CR12	2.154	03/23/95	NA	%	< 0.05	NA	TC	14359502	7555-6 (3-5)
#7	Leco CR:2	3.332	03/23/95	NA	%	< 0.05	NA	TC	14359503	75MP-7 (4-6)
#7	Leco CR12	2.888	03/23/95	NA	%	< 0.05	NA	TC	14359504	75MP-17 (4-6)
#7	Leco CR12	3.555	03/23/95	NA	%	< 0.05	NA	TC	14359505	24MP-7 (2-4)
#7	Leca CR12	3.331	03/23/95	NA	%	0.21	NA	TC	14359506	24MP-3 (3-5)
#7	Leco CR12	2.908	03/23/95	NA	%	0.13	NA	TC	14359507	24MP-4 (3-5)
#7	Leco CR12	3.093	03/23/95	NA	%	2.21	NA	TC	14359508	24MP-6 (4-6)
#7	Leca CR12	3.394	03/23/95	NA	%	0.73	NA	TC	14359509	24MP-15 (4-6)
"tower"	C0-03	0.111	03/21/95	NA	%	< 0.02	NA	СС	14359501	75SS-4 (3-4)
"tower"	C0U-02	0.259	03/21/95	NA	%	< 0.02	NA	CC	14359501	
"tower"	COU-02	0.185	03/21/95	NA	%	< 0.02	NA	CC	14359502	
"tower"	COU-02	0.248	03/21/95	NA	%	< 0.02	NA	CC	14359503	75MP-7 (4-6)
"tower"	C0U-02	0.221	03/21/95	NA	%	< 0.02	NA	CC	14359504	
"tower"	COU-02	0.127	03/21/95	NA	%	< 0.02	NA	CC	14359505	24MP-7 (2-4)
"tower"	C0U-02	0.130	03/21/95	NA	%	< 0.02	NA	CC	14359506	24MP-3 (3-5)
"tower"	COU-02	0.128	03/21/95	NA	%	< 0.02	NA	cc	14359507	24MP-4 (3-5)
"tower"	C0U-02	0.138	03/21/95	NA	%	< 0.02	NA	CC	14359508	24MP-6 (4-6)
"tower"	COU-02	0.165	03/21/95	NA	%	< 0.02	NA	CC	14359509	24MP-16 (4-6)
NA	by calc	NA	NA	NA	%	< 0.05	NA	TOC	14359501	755\$-4 (3-4)
NA	by calc	NA	NA	NA	%	< 0.05	NA	TOC	14359501	755\$-4 (3-4)
NA	by calc	NA	NA	NΑ	%	< 0.05	NA	TOC	14359502	75\$\$-6 (3-5)
NA	by caic	NA	NA	NA	%	< 0.05	NA	TOC	14359503	75MP-7 (4-8)
NA	by calc	NA	NA	NA	%	< 0.05	NA	TOC	14359504	75MP-17 (4-6)
NA	by calc	NA	NA	NA	%	< 0.05	NA	TOC	14359505	24MP-7 (2-4)
NA	by calc	NA	NA	NA	%	0.21	NA	TOC	14359506	
NA	by calc	NA	NA	NA	%	0.13	NA	TOC	14359507	24MP-4 (3-5)
NA	by calc	NA	NA	NA	%	2.21	NA	TOC	14359508	24MP-6 (4-6)
NA	by ca⊬c	NA	NΛ	NA	%	0.73	NA	TOC	14359509	24MP-18 (4-6)

Samples analyzed and results reported on an as received basis. Soil samples are not homogeneous.

Values reported below Detection Limits are for reference only.

TC detection limit = 0.05% CC detection limit = 0.02%

TOC detection limit = 0.05%



Quality Analytical Services Since 1936 4630 Indiana Street • Colden, CO 80403

NON-CLP ANALYSIS RESULTS LABORATORY CONTROL STANDARD

Date:

03/24/95

Client: Evergreen Analytical

Lab Name:

Huffman Labs Sue Zeller Contact: Patty McClellan

Contact:

Huffman Lab #: 143595

LABORATORY CONTROL STANDARD

Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
ID #		Compound	Value	Value			Date	#	ID
 LCS	BN 4851	TC	3.35	3.41	102	%	03/23/95	Leco CR12	#7
LCS	BN 4056	CC	11.33	11.32	100	%	03/21/95	COU-02	"tower"

SPIKE RECOVERY

Lab	Source	Element/	True	Found	% R	Units		Method	instrument
ID #	_	Compound	Value	Value			Date	#	Q)
SPIKE	BN 4712	TC	12960	14089	109	ug C	03/23/95	Leco CR12	#7
SPIKE DUP	BN 4712	TC	14520	15357	106	ug C	03/23/95	Leco CR12	#7
SPIKE	BN 4712	CC	1080	1086	101	ug C	03/21/95	COU-02	"tower"
SPIKE DUP	BN 4712	CC	1167	1168	100	ug C	03/21/95	COU-02	"tower"



Quality Analytical Services Since 1936
4630 Indiana Street • Colden, CO 80403

NON-CLP QA/QC ANALYSIS RESULTS INITIAL AND CONTINUING CALIBRATION VERIFICATION

Date:

03/24/95

Client: Evergreen Analytical

Lab Name:

Huffman Labs

Contact: Patty McClellan

Contact:

Sue Zeller

Huffman Lab #: 143595

INITIAL CALIBRATION

Instrument	Method		Units	% R	Found	True	Element/	Source	Lab
ID	#	Date			Value	Value	Compound		ID#
#7	Leco CR12	03/23/95	%	99	11.92	12.00	TC	BN 4712	ICS
"tower"	COU-02	03/21/95	%	100	11.96	12.00	CC	BN 4712	ICS

Slope =

NA

Intercept =

NA

Single point calibrations for this test.

95% Correlation Coefficient =

NA

CONTINUING CALIBRATION VERIFICATION

Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
ID#		Compound	Value	Value			Date	#	ID
ccs	BN 4712	TC	12.00	12.19	102	%	03/23/95	Leco CR12	#7
ccs	BN 4712	TC	12.00	12.07	101	%	03/23/95	Leco CR12	#7
CCS	BN 4712	TC	12.00	11.81	98	%	03/23/95	Leco CR12	#7
CCS	BN 4712	CC	12.00	11.96	100	%	03/21/95	COU-02	"tower"
CCS	BN 4712	CC	12.00	11.92	99	%	03/21/95	COU-02	"tower"
CCS	BN 4712	CC	12.00	11.93	99	%	03/21/95	COU-02	"tower"
CCS	BN 4712	CC	12.00	11.97	100	%	03/21/95	COU-02	"tower"



LABORATORIES, INC.
Quality Analytical Services Since 1936
4630 Indiana Street • Colden, CO 90405

ANALYSIS: TOTA'. CARBON METHOD: HIGH TE. P
CONB. - INFRARED DET.
INSTRUMENT: LECO CR12 ANALYZER # 7
BALANCF # 19

STD. CALCIUM CARBONATE		STD. N.I.S.T. BUFFALO	RIVER SEDIMENT (BRS)
12.00 %C (theory)	BN 4712	3.348 %C (theory)	en_4851

SAMPLE #	SAMPLE WT G		CARBON PRE- CALIB	CARBON POST- CALIB		QC	% REC.
					: 1		
			 1				
		4	77-70				
*							
CaCO3	0.103		11.88	11.92	<u> </u>	47, TES	
Calco	0.115		11.95			CCS.	99.6
CaCO3	0.123		12.09			(4)	100.8
BL	1.0000.		 .608			MB	
BL '	1.0000		0.001			TB	
BRS	0.271		3411			ىدى	1019
						-	
		- · · · · · · · · · · · · · · · · · · ·					
						- E-110	
College Contract							
	0						
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							4
						- 200	
					- 4		
	1					<u> </u>	
						ا دست	

AN LYST January DATE 3-23-95 REVIEWED Sy DATE 3/24/15 PAGE / OF 3

4 HAM WAS CYCAL (BOOK SAYS TO RECAL + CHECK FOR LEAGY RESTRICTIONS)
THE COSE BN 3743 (Try +211)

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HUFFMAN LABORATORIES, INC.

gality Analytical Services Since 1956 3 Indiana Street - Golden, CO 80403

ANALYSIS : TOTAL CARBON	METHOD : HIGH TEMP
	COMB INFRARED DE

INSTRUMENT: LECO CR12 ANALYZER # 7
BALANCE # 19

STD. CALCIUM CARBONATE

STD. N.I.S.T. BUFFALO RIVER SEDIMENT (BRS)

12.00 %C (theory)

BN 47/2

3.348 %C (theory)

BN 485/

SAMPLE #	SAMPLE WT G		X CARBON PRE. CALIB	CARBON POST- CALIB		QC	% REC.
			70	J. J. Z.			
100						A.	
		Talish version in the second	3.3	(T, 100			
	- 12						
12/12							
				.2			
	7283						
43401							
					====		
						82 84 8 = X	
M ³ BL	1,0000			0.002		&I	
Ø BRS	0.310			3.429		ررح	102.4
Call3	0.116			12.19		ı	101.6
ي آعدون عني ا				42.56		1	101.1
~'ceos€				42,70			101.4

ANALYST Intille DATE 3-23-95 REVIEWED & DATE 3/2.4/1) PAGE 2 OF 3

HUFFMAN

LABORATORIES, INC.
Cuality Analytical Services Since 1936
4630 Indiana Street • Golden, CO 80403

ANALYSIS: TOTAL CARBON	METHOD: HIGH TEMP COMB. INFRARED DET.
INSTRUMENT : LECO CR12	ANALYZER # 7
BALANCE # 19	

STD. CALCIUM CARBONATE		STD. N.I.S.T. BUFFALO RI	VER SEDIMENT (BRS)
12.00 %C (theory)	BN 4712	3.348 %C (theory)	BN 4851

SAMPLE	SAMPLE WT G			CARBON PRE- CALIB	CARBON POST- CALIB		ac	REC.
H-35 CF2	1,000				0.001		邛	
143501	2.195				0.041	<u> </u>	Dup ±250%	
143501	2.067				0.039		of Mean	
143501	2.138	\int			0.659	1		
+51KE	0.108							
143501	2.026			(0.758)			
+3PIKE	0.121							
143502	Z.154				0.045			
143503	3.3320				0.043			(
143504	2.888			·	0.036			1
1435 05	3.555				0.043			
1435,06	3.331				0.213			
BRS	0.316				3.436	·	ധ	102 6
CaCO3	0.115				12.07		((5)	100.5
BL	1,000				0.004		IB	
1435 07	2.908		(1 <u>4</u>)		0.126			
43508	3,093				2.213			
143509	3.394				0.727			
BRS.	0.249				3.437		ccs	102.7
CaCO3	0.134				11.81	-	· · · · · · · · · · · · · · · · · · ·	98.4

HUFFMAN

LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street - Golden, CO 30403

BALANCE #	1 /0	KCHWA SHE SHOULD SHE	000000
ANALYZER #	6	COULOMETER #	Tower
ANALYSIS	CARBONATE CARBON	METHOD	SOP COU #2

CALCIUM CARBO	į,	80TTLE # 4712	% C THEOR	Y = 12.00%		DIUM CARBO		OTTLE # 4056	%C THEOR	Y = 11.33 %
1	RE WT.	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES		COUNTS µgrams	BLANK	% CARBON A9 CARBONATE CARBON		RECOVERY
Blank						6.2			IB	
Bat 81	-					6.4		1	MB	
							<i>y</i>	1		
#C107 0.0	02084	2.611777	0.00.9693			1164.8	1153.6	11.96	I ICS	99.63% red
= No2CO3 0.6	01000	0.611682	0.010632			1215.4	1209.4	11.32	1 405	99.93%.100
		J				0.00			· ·	
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						130	almy /
								-070-7		
#C1003 0.5	49270	0.560589 b	o.01319			1360,3	13543	1/-96	Lar du	199.71 % rac
			/10//0-1							
, , , , , , , , , , , , , , , , , , ,										
									/ Q	dua +
				17 t			-/0	:	<u> </u>	
	l.							0.002		
						4				
1435-010.5	73314 (0.654615	0.111301			7.1	1,1	0.001		
1435-01 0.5						8.5	2.5	0.001	طيال	
#C4C03 0.57	50530	.599070	0.014017			1676.7	1670.7	11,92	CC5	99.33%12
went to 1	unch									
#Ca CO 3 0.102						1410.2	1404.2	11.93	CCS	39.41 Zeac
72.0kco227 13.0kco227 13.0kco265	37000 5837210	.6327000	0.009000			1092.0			1	E spite chat
ANALIST Tom He	rmin	CATE	3-21-9	5 REVIEW	£Σ	× ·	CATE	3/22/15	PAGE	of 2



LABORATORIES, INC. Cuulity Analytical Services Since 1956 4630 Indiana Street - Colden, CO 80403

ANALYSIS	CARSONATE CARSON	METHOD	SOP COU 02
ANALYZER #	6	COULOMETER #	Tower
BALANCE #	10	Entrace of the second s	Care top polymer (news top and)

CALCIUM CI		BOTTLE # 47/2	% C THEON	iY = 12.00%	SODIUM CARBO Na2CO3	NATE	90ПLE # 4056	%C THEOR	Y = 11.33
SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES	COUNTS LIGRAMS	BLANK	% CARBON AS CARBONATS CARBON		PECQUERY
		0.544936			1174.4	1162.4	99.98/196	spites hip	ree ptobe
				5.					
1435-02	0.618251	0.803001			7.8	1.8	10001		
1435-03	0.615765	0.564216	0.248451		8.4	2.4	0.001		
1435-04	0.544141	B.764940	1.220699		8.2	2,2	0.001		
1435-05	0.564375	0.690941	0.126566		7.3	1.3	0.001		<u> </u>
1435-06	0.58 <u>26</u> 20	0.712407	0.129787		6.8	0.8	0.001		1 +
1435-07	0.557046	0.684879	0.127833		7.2	1.2	0.001		
# CaCO2	0.159855	0.670446	0.010591	<u> </u>	12694	12634	11.93	CC5	9941 %
1	1	0.644224			8.5	2.5	0.002		
	ł	0.709664	Į		7.5	1.5	100.0		-
	45/10150								
		ज् या वाच्या	(1.77.776)				-05012		200
(+ #Cico.)		- 10 0 1 - 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	210525		17.0	7 711		क्ष्र≽ िया	- Juliana
(#C.CO V	1544	1/15/2	2.010400		- / - / /				
	AND ROOM FORWARD							7	
		757411-21							
1	1	7.631088 C	1		1329.0	13230	11.97	CCS	99.72 ½mi
				······································					
AHALIST Tom	Herma	un DATE	3-21-75	REVENS	5 - Ex-	DATE	7/22/45	PAGE Z	OF 2



CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project #: 95-0983

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 28, 1995, 22 water samples and one trip blank were received in good condition at EAL with the following discrepancies: 1. Holding times for samples 24PZ-1S, 24PZ-1D, 24MP-6S and MD32-3 for Nitrate/Nitrite analyses had expired prior to sample shipment; the chain of custody requested the trip blank be analyzed for BTEX, TVH, alkalinity, anions and TOC. The laboratory was instructed by John Hicks of PES to proceed with the anion analyses and to analyze the trip blank for BTEX.

Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Water Matrix, Method 602

Samples 24P2-1S, 56MP-5S and MW56-10 were analyzed at dilutions due to contaminant beyond the linear range of the instrument. The reporting limits were raised accordingly. Samples 56MP-4S and MW56-6 were originally analyzed within holding times at a dilution factor of 100 due to target analytes. Toluene was still beyond the linear range so the samples were re-run at a dilution factor of 250 outside holding times. The original data is reported with extrapolated values for toluene.

There were no other quality control anomalies to report.

Total Volatile Hydrocarbons (TVH), Water Matrix, Method 8015M
The sequence for samples 56MP-15D (laboratory duplicate), MW56-10
and 56MP-7D was initiated before the holding time expired, however,
the analyses were completed shortly after midnight. There were no
other quality control anomalies to report.

General Chemistry

The holding times for samples 24PZ-1S, 24PZ-1D, 24M+ 5S and MD32-3 for Nitrate/Nitrite expired prior to sample receipt. There were no other quality control anomalies to report.

Patricia A. McClellan, Project Manager

Date(s) Sampled: 03/24,26,27/95 COC Date Due: 03/31-BTEX.TVH 04/11 OTHERS Holding Time(s): $03/26,28,29-NO_{2},1$ Date Received: 03/28/95 0930 04/7,9,10-BTEX,TVH,ALKALINIT Client Project I.D. 722450.21020/MAC DILL Rush STANDARD Client: Parsons Engineering Science, Inc. Shipping Charges N/A Address: 1700 Broadway Suite 900 E.A. Cooler # 263 Denver, CO 80290 Airbill # FED EX Contact: TODD WIEDEMEIER Custody Seal Intact? Y Cooler X__ Bottles Client P.O. COC Present Y Sample Tags Present? Y Phone #831-8100 Fax #831-8208 Sample Tags Listed? Y Sample(s) Sealed? Y Special Invoicing/Billing Special Instructions * ALL BTEX ARE TO INCLUDE CHLOROBENZENE, TMB AND TEMB * AN MS/MSD AND LAB DUPLICATE IS TO BE ANALYZED ON ALL PES PROJECTS. Lab Client ID# ID# Analysis Mtx Btl Loc 24 PZ-1S X04848A/B * BTEX 602 40V X04849A/B 24 PZ-1D * BTEX 602 40V X04850A/B 24 MP-6S * BTEX 602 W 40V X04851A/B MD 32-3 * BTEX 602 W 40V X04852A/B MW 56-10 * BTEX 602 W 40V 2 X04853A/B 56 MP-6D * BTEX 602 W 2 40V X04854A/B 56 MP-6S * BTEX 602 W 40V 2 X04855A/B MW 56-1 * BTEX 602 W 40V MW 56-21 X04856A/B * BTEX 602 W 40V X04857A/B 56 MP-8S * BTEX 602 W 40V X04858A/B 56 MP-10S * BTEX 602 W 40V 2 X04859A/B MW 56-2 * BTEX 602 W 40V X04860A/B MW 56-8 * BTEX 602 W 40V 2 X04861A/B MW 56-9 W * BTEX 602 40V 2 X04862A/B 56 MP-4S W 2 * BTEX 602 40V W X04863A/B MW 56-12 * BTEX 602 40V X04864A/B MW 56-6 40V * BTEX 602 R=Sample to be returned Route GC/MS ___ GC 3 Metals ___ Wet Chem 2 SxPrep To SxRec QA/QC Sales C <u>C</u> Oriq Page 1 of 1 Page(s) Custodian/Date:

Evergreen Analytical Sample Log Sheet

Project # <u>95-0983</u>

Lab ID #	Client ID#	Analysis	Mtx	Bt1	Loc
)4865A/B	56 MP-5S	* BTEX 602	W	40V	2
X04866A/B	56 MP-5D	★ BTEX 602	W	40V	
X04867A/B	56 MP-15D	* BTEX 602	W	40V	
X04868A/B	MW 56-10	* BTEX 602	W	40V	
X04869A/B	56 MP-7D	* BTEX 602	W	40V	
X04870A/B	TRIP BLANK	* BTEX 602	W	40V	
X04848C/D	24 PZ-1S	TVPH	W	40V	2
X04849C/D	24 PZ-1D	TVPH	W	40V	2
X04850C/D	24 MP-6S	TVPH	W	40V	2
X04851C/D	MD 32-3	турн	W	40V	2
X04852C/D	MW 56-10	ТУРН	W	40V	2
X04853C/D	56 MP-6D	TVPH	W	40V	2
X04854C/D	56 MP-6S	турн	W	40V	2
X04855C/D	MW 56-1	турн	W	40V	2
X04856C/D	MW 56-21	TVPH	W	40V	2
X04857C/D	56 MP-8S	TVPH	W	40V	22
X04858C/D	56 MP-10S	TVPH	W	40V	2
@4859C/D	MW 56-2	турн	W	40V	2
X04860C/D	MW 56-8	TVPH	W	4 O V	2
X04861C/D	MW 56-9	TVPH	W	40V	22
X04862C/D	56 MP-4S	турн	W	40V	2
X04863C/D	MW 56-12	TVPH	W	40V	2
X04864C/D	MW 56-6	TVPH	W	40V	2
X04865C/D	56 MP-5S	TVPH	W	40V	2
X04866C/D	56 MP-5D	TVPH	W	40V	2
X04867C/D	56 MP-15D	TVPH	W	40V	2
X04868C/D	MW 56-10	TVPH	W	40V	2
X04869C/D	56 MP-7D	TVPH	W	40V	2
X04848E	24 PZ-1S	ANIONS C1, SO, NO, NO	W	125P	CR3
X04849E	24 PZ-1D	ANIONS Cl, SO ₄ , NO ₂ , NO ₃	W	125P	CR3
X04850E	24 MP-65	ANIONS C1, SO ₄ , NO ₂ , NO ₃	W	125P	CR3
X04851E	MD 32-3	ANIONS C1, SO ₄ , NO ₂ , NO ₃	W	125P	CR3
X04852E	MW 56-10	ANIONS C1, SO ₄ , NO ₂ , NO ₃	W	125P	CR3
X <u>04853E</u>	56 MP-6D	ANIONS C1, SO, NO, NO,	W	125P	
J4854E	56 MP-6S	ANIONS C1, SO ₁ , NO ₂ , NO ₃	W	125P	
Page 2 of 3	Pages		Proj		95-0983

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Lab ID #	Client ID#	Analysis	Mtx Btl Loc
X04855E	MW 56-1	ANIONS	W 125P CR3
X04856E	MW 56-21	ANIONS C1, SO4, NO2, NO3	W 125P CP3
X04857E	56 MP-85	ANIONS C1, SO4, NO2, NO3	W 125P CR3
X04858E	56 MP-10S	ANIONS Cl. SO., NO2, NO3	W 125P CR3
X04859E	MW 56-2	ANIONS Cl. SO4. NO2. NO3	W 125P CR3
X04860E	MW 56-8	ANIONS C1, SO4, NO2, NO3	W 125P CR3
X04861E	MW 56-9	ANIONS C1, SO ₄ , NO ₂ , NO ₃	W 125P CR3
X04862E	56 MP-4S	ANIONS Cl. SO4, NO2, NO3	W 125P CR3
X04863E	MW 56-12	ANIONS Cl. SO4. NO2. NO3	W 125P CR3
X04864E	MW 56-6	ANIONS C1, SO, NO, NO,	W 125P CR3
X04865E	56 MP-5S	ANIONS Cl. SO4, NO2, NO3	W 125P CR3
X04866E	56 MP-5D	ANIONS C1, SO4, NO2, NO3	W 125P CR3
X04867E	56 MP-15D	ANIONS C1, SO ₄ , NO ₂ , NO ₃	W 125P CR3
X04868E	MW 56-10	ANIONS C1, SO4, NO2, NO3	W 125P CR3
X04869E	56 MP-7D	ANIONS C1, SO4, NO2, NO3	W 125P CR3
X04851F	MD 32-3	ALKALINITY	W 250P CR3
X04853F	56 MP-6D	ALKALINITY	W 250P CR3
X04854F	56 MP-6S	ALKALINITY	W 250P CR3
X04866F	56 MP-5D	ALKALINITY	W 250P CR3
X04867F	56 MP-15D	ALKALINITY	W 250P CR3
X04868F	MW 56-10	ALKALINITY	W 250P CR3
X04851G	MD 32-3	TOC	W 125A CR3
X04850	24 MP-65	TOC	W 125A CR3

Page 3 of 3 Pages

Project # 95-0983

CHAIN OF CUSTODY RECORD / / "ALYTICAL SERVICES REQUEST

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	オントド	0		FAX# 45 - 631 - 8:20.
١	CONPANY PARSONS ENCINEERING ZIRNIE	BERROWAY SUITE 900	P 80290	FAX #
·	LUCINER	ADW AY	E C.O 21	0018-1
9	PAKSONS	1700 Be	CITY DAMURE STATE CO ZIP A0290	PHONE# 303-831-8100
	COMPANY	ADDRESS / 700 L	CITY Or	PHONE

Evergreen Analytical Inc.	4036 Vounnillald St
Evergreen	*

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4035 Youngrield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400

FAX RESULTS Y / N

Wiedmeap 30 12 52455 TURNAROUND REQUIRED* CLIENT CONTACT (print) EAL. QUOTE # PROJECT I.D.

expedited turnaround subject to additional fee

Do not write in shaded area

EAL use only

ANALYSIS REQUESTED

MATRIX

(signature) Sampler Name:

263 (print) MARK VESSEL) Evergreen Analytical Cooler No._ Cooler Received

Please PRIN

in shaded area EAL Project # 0983 Custodien EAL Sample No.	8h8h0	5h 1	. 05	\$	C	5.3	45	25.	9.5	V 57	Location #2, CR3	Container Size	
Circle & list metals below) Dissolved Metals - DW / SW846 Circle & list metals below) Alk & Interpreted to the control of t	×		x x f		×	×	XX	X	×	. ×	150° (151)35/4		
GETEX BOXOVEOS (circle)/MTBE (circle)/MTBPH 418.1/Oil & Grease 413.1 (circle)/MTBPH 8015mod. (Gasoline)	Y X	X	×	×	X	X	×	×	X	УX	<u></u>		
TCLP VOA/BNA/Pest/Herb/Metals VOA 8260/624/524.2 (circle) BNA 8270/625 (circle) Pesticides 8080/608 (circle) Pest/PCBs 8080/608/508 (circle) Pest/PCBs 8080/608/508 (circle)													on Ice
Mo. of Containers Water-Drinking/Discharge Ground (circle) Soil / Solid Oil / Sludge	5 x	5 1	×	7 x	×	×	×	5 X	5 1				Bucked
AINT NATED TIME SAMPLED TIME	3/24/45 1230	3/24/95 1345	3/24/45 1410	3/24/45 1545	3/26/45 0930	3/26/95 1030	3/26/95 1100	3/26/95 1210	3/26/15/120	3/26/45 1310			plas P.
Evergreen Analytical Cooler No. 263 Cooler Received Please PRINT all information: CLIENT SAMPLE IDENTIFICATION SAMPLED	624 PZ-15	24 PZ - 1D	24 MP-65	MD32-3	MW 56-10	56MP-6D	56MF-6S	14W56-1	MWS6-21	56MP-85	HT	00:	Instructions:

Date/Time Received by: (Signature) Remainshed by: (Signature)

Date/Time Relinquished by: (Signature)

Date/Tunu | Recepted by: (Supplieru)

Date/Time

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CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Page 2013 CLIENT CONTACT (print) 70 M 2 d cm at e/ PROJECT I.D. 72 2 4(5.0 . 2 / 02 EAL. QUOTE # PO.# TURNAROUND REQUIRED: \$ 0 0 7 S *expedited turnaround subject to additional fee	EAL use only Do not write	in shaded area	EAL COS	Custodian	EAL Sample No.	858hO	25	.09	19	29	63	7.9	65	99	67	Location #2, (R3	Container Size	
CLIENT CONTA PROJECT I.D EAL. QUOTE # TURNAROUNE		J 7	Z- Mojaq siz	21044	071A	×	×	x	×	×	~	×	×	×	×			
033	REQUESTED		(Diesel)	bome 1 MG-sls Sem isi	Total Met (circle & I													
Inc	<u>S</u>	(circle)	BTM\(alphi)	.bome1	08 HAND	×	×	×	×	*	۸ ۱	×	× ×	× ×	×			
n Analytical 4036 Younglield St. Wheat Ridge, Colors (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 FAX RESULTS Y	A	Sircle) () 802\809\ elo1io) 212\	0808 si 0818 si	Herbicide PCB Scre				×	Ž								
Evergree			ircle)	0808 s	Pesticide													
69.3/		Netals	JPest/Herb. Blorio) S.AS	AN8\A(3\\$\29\0	TOLP VC (circle) VOA 826													
Surer 303-	MATRIX		Jecharge Jegnarge	ρ	(circl) Soil / Solid													
FAX # 1		punois			No. of Co	5	χ Σ	5,	5 ×	S	5 ×	いメ	3	× Q	× e			
Zip Zip Zip	SSELY	263	۲	::	DATE SAMPLED TIME	3/26/95 1410	3/20/95 1510	3/17/45 1546	3/27/45 0800	3/27/95 0900	3/27/95 0940	0501 SP/F1/2	3/27/95 1130	3/27/95/12:20	3/27/45 1220			1050
COMPANY PARSONS ENSTAR COCITY Der VC/STATE COPHONER 303-831-8/0C	Mnex VE	Evergrech Analytical Cooler No.	Please PRINT	all information:	CLIENT SAMPLE DENTIFICATION SAM	56MP-10S 31	MW 56-2 3/	MW56-8 3/	MW56-9 31	56 MP-45 3/	MW56-12 31	و	56MP-55 31	56MP-50 31	56MP-15D 3,			Instructions: See

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•	1 dd 101, 1 dm e 16. 2 (5:0 2 10 2 e) PO# ED: 36 6 4 7 5 bject to additional fee	EAL use only Do not write	in shaded area	EAL Project #	Custodian	89840	59	02 1			Coloration +20 / 00	r 5/20	pin 3/28/95
AVICES REQUES	CLIENT CONTACT (print) 644 PROJECT I.D. 72.2.45.0.2 EAL. QUOTE # P.O.# TURNAROUND REQUIRED: 36.4 ***********************************	REQUESTED OF S	97848	Z ON Signal Person Signal Pers	Cicicle & list me Dissolved Mee (circle & list m	X	×	X					12 supp (3 snow)
CHAIN OF CUSTODY RECORD / "NALYTICAL SERVICES REQUEST	Evergreen Analytical Inc. 4036 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 1 - & 2 C. 2 FAX RESULTS Y / N	Sis	(circle) (Circle)MTBG (Circle)MTBG & Grease 413. d. (Gasoline)	PCB Screen	*	×	*					o STEX and
ODY RECORD /	Evergreen $\mathcal{C}_{\mathcal{C}}$		(/524.2 (circle) (circle) 0/608 (circle)	TCLP VOAVBN VOA 8260/625 BNA 8270/625 Pesticides 808								trip blank f
CUST	203	MATRIX	(Duno)	Mischarge/Œ	Water-Dunking (circle) Soil / Solid	X	`*						lyse
AIN OF	202996 FAX#	\ \ \		216	Mo. of Contain	310 6	1345 5	-					(Ina
S	STATE CO ZIP	VESSEL	0. 263	LN:	TE PLED		3/27/95 13						
	COMPANY (1250x) ADDRESS / 200 (1) CITY (2013 - 831) Sampler Name:	(signature) M.L.C.	Evergreen Analytical Cooler No Cooler Received	rd .	all information: CLIENT SAMPLE DA IDENTIFICATION SAMI	MW56-10	56MP-7D	Trip Blink				1	Instructions:

Helinquished by: (Signaturo) Date(Timo Meceived by: (Signaturo)

Date/fine [Reinquished by (Signature)

Date/time (Regioned by (Supplere)

to year here

Evergreen Analytical Sample Receipt/Check-in Record Date & Time Rec'd: 3-28-95 //00 Shipped Via: (Airbill # if applicable) Client :_ 722450-21020 Client Project ID(s):_ EAL Cooler(s): EAL Project #(s):95-Cooler# N Y N Υ N Ice packs Y Temperature °C Y N N/A 1. Custody seal(s) present: Seals on cooler intact Seals on bottle intact Chain of Custody present: Containers broken or leaking: (Comment on COC if Y) 4. Containers labeled: 5. COC agrees w/ bottles received: (Comment on COC if N) 6. COC agrees w/ labels: (Comment on COC if N) 7. Headspace in VOA vials-waters only (comment on COC if Y) 8. VOA samples preserved: 9. pH measured on metals, cyanide or phenolics*:_____ List discrepancies_ *Non-EAL provided containers only, water samples only. 10. Metal samples present: Total _____, Dissolved _____ D or PD to be filtered: T,TR,D,PD to be Preserved: 11. Short holding times: Specify parameters_ 12. Multi-phase sample(s) present: 13. COC signed w/ date/time: Comments: (Additional comments on back) Custodian Signature/Date: 4

CHAIN OF CUSTODY RECORD, IALYTICAL SERVICES REQUEST

الالا مرايد \	~	<	EAX # 43 - 83/ - 8202
COMPANY PARSONS ENGINEERING SIRNLA	Suite 900	80290	FAX #
EneinEE	VA 0.000	CITY DAMVER STATE CO 21P 80290	0018-1
PARSONS	ADDRESS / 700 BergowAY	CHUCE STA	0018-158-505 #PNOHO
COMPANY	ADDRESS	$c_{\text{IIY}} = O_{\nu}$	*UNOHd

Evergreen Analytical Inc.

Page Lot 3

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4036 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400

N ` ≻

FAX RESULTS

Wiedmerer 722456.21020 イント CLIENT CONTACT (print) Todd TURNAROUND REQUIRED. EAL. QUOTE #_ PROJECT I.D.

*expedited turnaround subject to additional fee

ANALYSIS REQUESTED

MATRIX

Do not write in shaded area EAL use only

(signature) MARIG VESSECY (print) MARIG VESSECY Evergreen Analytical Cooler No. 263 Cooler Received
(d m

Sampler Name:

Please PRINT

in shaded area EAL Project #	Custodian	EAL Sample No.							,				Location	Container Size
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		5L00 L1 1												
(Gasolisa)	.boma	TVPH 8015	×	×	×	×	~	X		×	×			
Crease 413.1 (circle)	<u>ع هم.</u> /Oil &	(1.814 H9RT												
Circle)/A/15) Z09/	(BIEX BOSO)	×	γ	×	~	×	×	×	X	Z	×		
	U	. CD 2CLBB												
(61715) (6170) (6170) (6170) (6170)	8150	Herbicides												
(elolio) 803	/000c	Pest/PCBs												
circle)	9080	Pesticides												
S4.2 (Circle)	G/#20	0/07S8 AN8												
sisteM\dh9H\tze9\		ACTOR SEGON											·	
- 1,1100	AN8/	TOLP VOA												
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s)enis:	No. of Cont	17	5	ی	4	7	٥	Ġ	150	1	5		
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7 7		DATE SAMPLED	3124/45	3/124/95	3/24/45 1410	3/24/95 1545	3/26/45 0930	3/26/95 1030	3/10/95 1100	3/26/95 1210	/15	3/26/45 1310		
	 .:	DATE AMPLE	24	124	41/	44/	171	126	77/	110	126	7		
2 7	natic	S	4	3		3	2	3	3	~;	3	8		
Evergreen Analytical Cooler No. 26. Cooler Received Please PRINT	all information:	CLIENT SAMPLE IDENTIFICATION	824 PZ-15	24 PZ - 1D	24 MP-65	MD36-3	Mw Se - 10	5 + MP - 6D	56/15 - 65	14W56-1	MW56-21	56MP-85	HI.	DD:
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Date/Time Received by: (Signature) Helinquished by (Signature) 71' YI

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Instructions:

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Date/Time Relinquished by: (Signature)

Date/Time | Received by (Sumptime)

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CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

COMPANY PARSONS ENSITE CO PHONE 303-831-810 Sampler Name:	6/200 21P 8/200 1/2 P	2 3 9	70 X	Surt & 30	303	1	83/-	Evergreen Analytical Inc. 4036 Younglield St. 4036 Younglield St. Wheat Ridge, Colorado 80 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 FAX RESULTS Y / N	gree.	4036 4036 Whei (303) FAX (800) FAX (Analytica 4036 Younglield 1 Wheat Ridge, Co (303) 425-6021 FAX (303) 425-66 (800) 845-7400 _FAX RESULTS	t Analytical Inc. 4036 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 _FAX RESULTS Y / N	II Inc tt. orado (60033 R		CLIEI PRQ EAL. TURA	CLIENT CONTACT (print) PROJECT I.D. 7.2.2 EAL. QUOTE #	NTACT D E# ND RE	(print)	ED.	CLIENT CONTACT (print)	Page 2013 14 21 02 21 02 21 02 21 02
(signature) Pure (print)	VESSELY			W	MATRIX	×					A	ANALYSIS	/SIS		REQUESTED	192		(_ E c			EA Do	EAL use only Do not write
Evergreen Analytical Cooler No.	40. 263			pun		+	siste		-	(9)		(eloni	(elɔɪi		948M	9;		(814			Ĭ.	in shaded area
Cooler Received	H			arge(Gro			WHerb/Me		(-101)	/508 (circl		ON BEIM	ce 413.1 (c	(enilos	DES/SI	SWS (WO)	1 2-16	^{रम्भ} ३			EAL	:.
Piease TT Piease all information:	LIN -		SJÐU	dəziQ\gr	,		S94/ANS	25 (دارداد	809/080	809/080		Solcingle	il & Grea	(Ga	DW / NI	d sisten	5.12	7mg			Project #	
CLIENT	TE		o. of Conta	iałer-Drinkii (circle)	bilo2 \ lic	I / Sludge	SVAOV GLP ircle) OA 8260/e	3/03S8 AO	esticides 8	est/PCBs 8 erbicides 8	UBBING C.	30208 PPH 418.1/0	NPH 418.1/0	EPH 8015	ircle & list	SIICLE & list	Anis.2	<u> رەد (ئ</u>				
Semp-10s	3/26/95 1	11ME 1410	4 N	<u>^</u>	s)		; —	1	—) ×	D ×	1)		×				EAL	EAL Sample NO.
MW 56-7	3/26/95 1510	015	2	х								×	۲				×					
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Mw56-9	3/17/95 0800	800	5	×		-						¥	×				×					
56 MP-45	3/27/95 0900	900	ñ	×		\dashv						×	χ.				χ.					
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Instructions: Se€	10500																					

CHAIN OF CUSTODY RECORD / (ALYTICAL SERVICES REQUEST

3/2 2/95 Relinquished by (Signature)

Date/Time | Received by: (Signaphire)

Date/Time Relinquished by (Signature)

Pale/June

Method 602 Data Report

Client Sample Number	: 24PZ-1S	Client Project No.	: 722450.21020/MacDil
Lab Sample Number	: X04848	Lab Project No.	: 95-0983
Date Sampled	: 3/24/95	Dilution Factor	: 1.00
Date Received	: 3/28/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040522
·		Method Blank No.	: MB040595

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	* *	**	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	υ	0.4	1
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	'
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	_
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	j

96%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

** = See BX2040612 for noted values, df = 1, 04/06/95

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (\alpha, \alpha, \alpha - Trifluorotoluene):

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

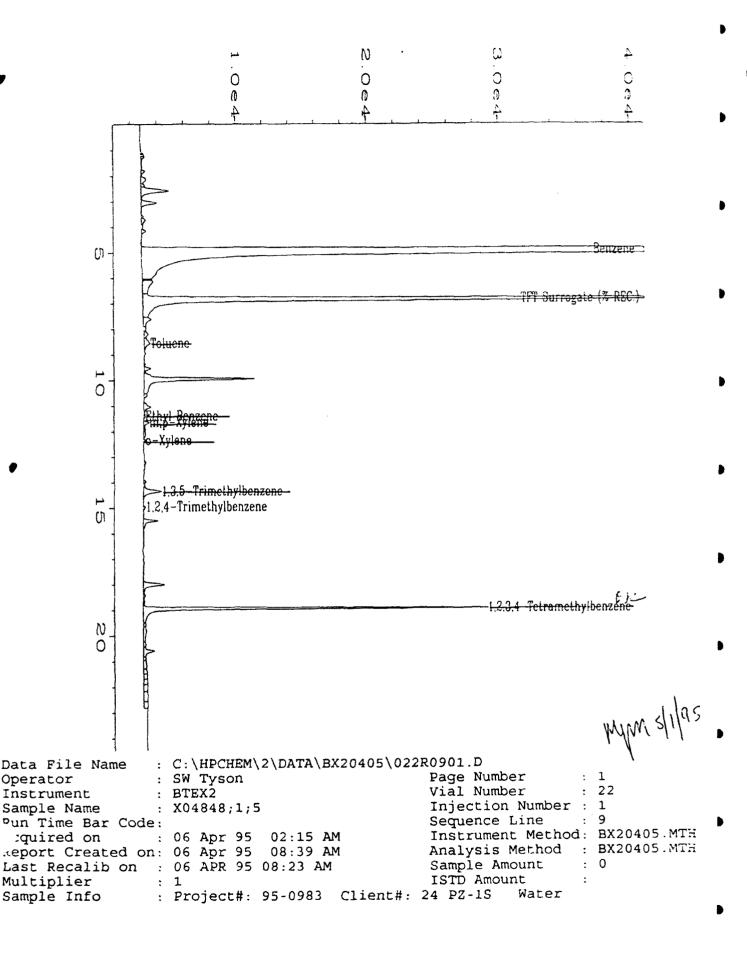
RL = Reporting Limit.

NA = Not Available/Not Applicable.

A = = 1...= 1

Approved

70%-130% (QC limits)



Method 602 Data Report

Client Sample Number	: 24PZ-1S	Client Project No.	: 722450.21020/MacDi
Lab Sample Number	: X04848	Lab Project No.	: 95-0983
Date Sampled	: 3/24/95	Dilution Factor	: 10.00
Date Received	: 3/28/95	Method	: 602
Date Prepared	: 4/6/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040612
-		Method Blank No.	: M8040695

Sample Compound Name Cas Number Concentration RL ug/L ug/L Benzene 71-43-2 180 4.0 Toluene 108-88-3 Chlorobenzene 108-90-7 Ethyl Benzene 100-41-4 **Total Xylenes** 108-38-3, 106-42-3 (m, p & o) and 95-47-6 1,3,5-Trimethylbenzene 108-67-8 1,2,4-Trimethylbenzene 95-63-6 1,2,3-Trimethylbenzene 526-73-8 1,2,3,4-Tetramethylbenzene 488-23-3

Surrogate Recovery (a,a,a-Trifluorotoluene): 94% 70%-130% (QC limits

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

** = See BX2040522 for noted values, df = 1, 04/06/95.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

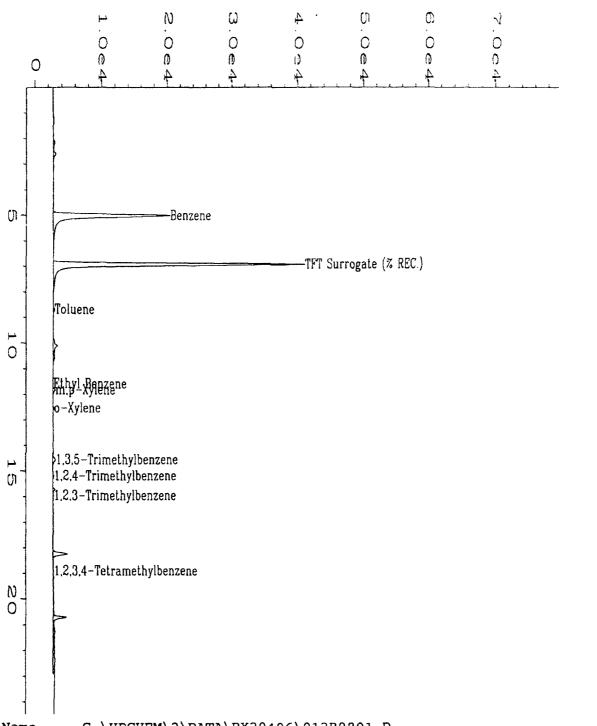
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst



Data File Name : C:\HPCHEM\2\DATA\BX20406\012R0801.D : C.J. Cook Operator Page Number Vial Number Instrument : 12 : BTEX2 Sample Name : X04848;10;1 Injection Number: 1 pun Time Bar Code: Sequence Line : 8 : 06 Apr 95 05:04 PM quired on Instrument Method: BX20406.MTH Report Created on: 30 Apr 95 08:31 PM Analysis Method : BX20406B.MTH

Last Recalib on : 30 APR 95 08:02 PM Sample Amount : 0 Multiplier : 10 ISTD Amount :

Sample Info : Project#: 95-0983 Client#: 24 PZ-1S Water

Method 602 Data Report

Client Sample Number	: 24PZ-1D '	Client Project No.	: 722450.21020/MacDill
Lab Sample Number	: X04849	Lab Project No.	: 95-0983
Date Sampled	: 3/24/95	Dilution Factor	: 1.00
Date Received	: 3/28/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040523
		Method Blank No.	: MB040595

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	
Benzene	71-43-2	2.3	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	0.6	0.4	1
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			_
1,3,5-Trimethylbenzene	108-67-8	U	0.4	•
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	•

Surrogate Recovery (α,α,α -Trifluorotoluene): 87% 70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

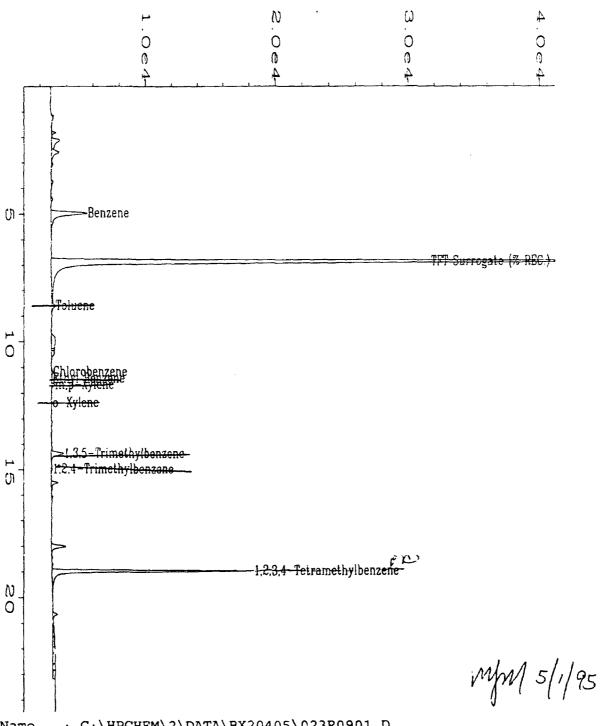
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



```
: C:\HPCHEM\2\DATA\BX20405\023R0901.D
Data File Name
                                                Page Number
Operator
                 : SW Tyson
                 : BTEX2
                                                Vial Number
                                                                 : 23
Instrument
Sample Name
                                                Injection Number: 1
                 : X04849;1;5
 in Time Bar Code:
                                                Sequence Line
                                                                 : 9
                                                Instrument Method: BX20405.MTH
.cquired on
                : 06 Apr 95 03:00 AM
                                                Analysis Method : BX20405.MTH
Report Created on: 06 Apr 95 08:40 AM
                                                                 : 0
                                                Sample Amount
Last Recalib on : 06 APR 95 08:23 AM
Multiplier
                                                ISTD Amount
Sample Info
                 : Project#: 95-0983 Client#: 24 PZ-1D
                                                          Water
```

Method 602 Data Report

Client Sample Number	: 24MP-6S/	Client Project No.	: 722450.21020/MacDill
Lab Sample Number	: X04850	Lab Project No.	: 95-0983
Date Sampled	: 3/24/95	Dilution Factor	: 1.00
Date Received	: 3/28/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/6/95	Lab File No.	: BX2040524
		Method Blank No.	: MB040595

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	· · · · · ·
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	4.1	0.4	!
Ethyl Benzene	100-41-4	υ	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	ļ
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	l

86%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

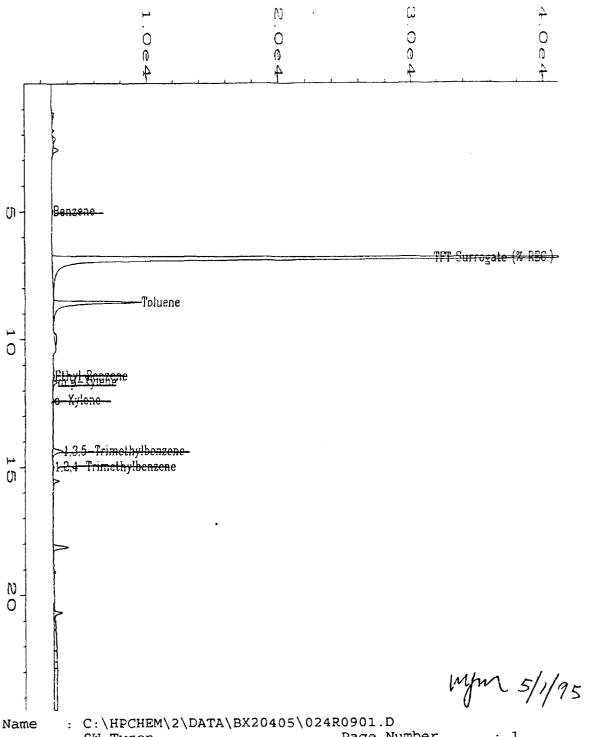
RL = Reporting Limit.

NA = Not Available Not Applicable.

Analyst

Approved

70%-130% (QC limits)



Data File Name : C:\HPCHEM\2\DATA\BX20405\024R0901.D Operator : SW Tyson Page Number Vial Number Instrument : BTEX2 Sample Name Injection Number: 1 : X04850;1;5 Sequence Line : 9 Run Time Bar Code: Instrument Method: BX20405.MTH : 06 Apr 95 03:47 AM quired on Analysis Method : BX20405.MTH port Created on: 06 Apr 95 08:41 AM Sample Amount Last Recalib on : 06 APR 95 08:23 AM ISTD Amount Multiplier Sample Info : Project#: 95-0983 Client#: 24 MP-6S Water

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No. : MW56-10 Client Project No. : 722450.21020/MacDill

 Lab Sample No.
 : X04852
 Lab Project No.
 : 95-0983

 Date Sampled
 : 3/26/95
 EPA Method No.
 : 602

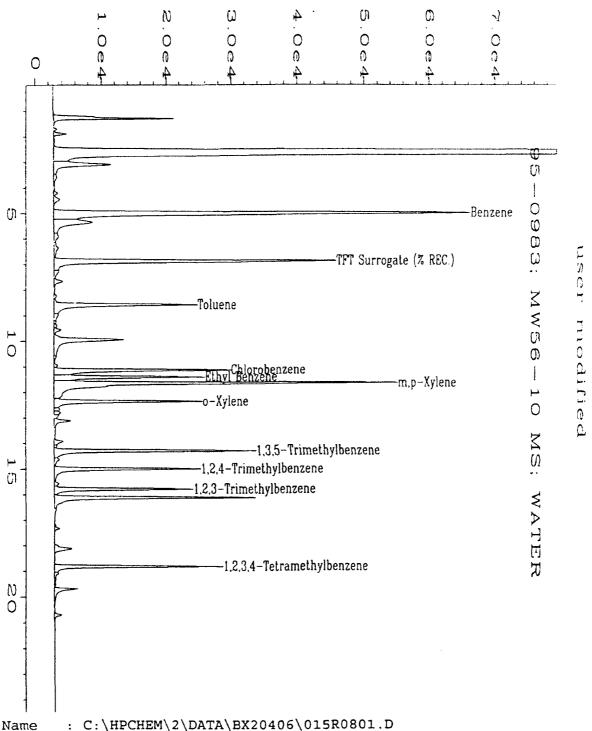
 Date Received
 : 3/28/95
 Matrix
 : Water

Date Prepared: 4/6/95Lab File Number(s): BX2040615,16Date Analyzed: 4/6/95Method Blank: MB040695

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration Concentration		Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20.0	36.3	54.7	92	50-150
Toluene	20.0	1.1	17.0	80	50-148
Ethyl Benzene	20.0	0.8	16.8	80	50-150
m,p-Xylene	40.0	0.6	37.2	92	50-150
o-Xylene	20.0	0.7	16.5	79	50-150
Chlorobenzene	20.0	4.3	22.0	89	55-135
1,3,5-TMB	20.0	0.0	14.8	74	50-150
1,2,4-TMB	20.0	0.0	16.2	81	50-150
1,2,3-TMB	20.0	0.0	15.4	77	50-1
1,2,3,4-TeMB	20.0	1.8	19.4	88	50-15u

	Spike	MSD	1400		QC Limits	
Compound	Added	Concentration	MSD	RPD		
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20.0	53.6	87	6.2	25	50-150
Toluene	20.0	17.1	80	0.6	25	50-148
Ethyl Benzene	20.0	16.6	79	1.3	25	50-150
m,p-Xylene	40.0	35.7	88	4.2	25	50-150
o-Xylene	20.0	16.3	78	1.3	25	50-150
Chlorobenzene	20.0	21.0	84	5.8	25	55 135
1,3,5-TMB	20.0	14.6	73	1.4	25	50-150
1,2,4-TMC	20.0	15.7	79	3.1	25	50-150
1,2,3-TMB	20.0	15.0	75	2.6	25	50-150
1,2,3,4-TeMB	20.0	18.4	83	5.8	25	50-150

* = Values outside of QC limits.						
RPD:	0	out of (10) outside limits.				
Spike Recovery:	0	out of (20) outside limits.				
Comments:	,		Manhail			
Analyst			Approved MS0838 VIS			

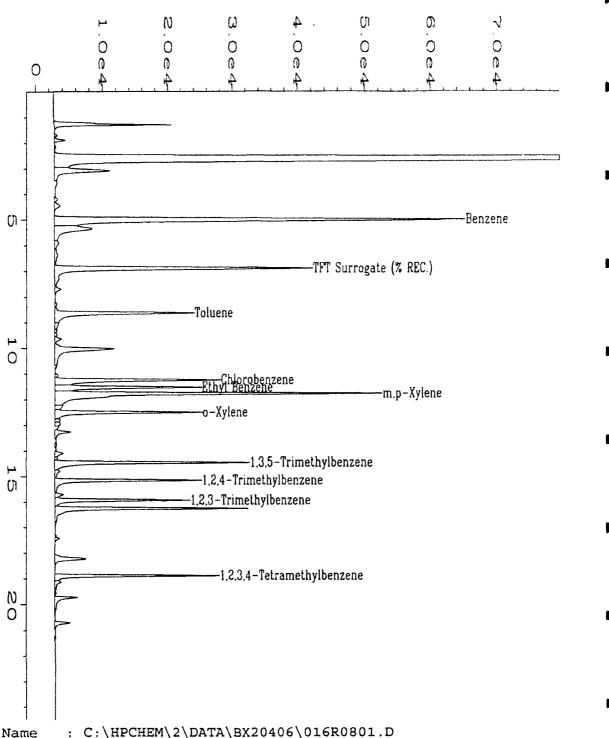


Data File Name : C.J. Cook Page Number Operator Vial Number : BTEX2 : 15 Instrument Sample Name : X04852MS;1;5 Injection Number: 1 Tun Time Bar Code: Sequence Line : 8 Instrument Method: BX20406.MTH quired on : 06 Apr 95 07:23 PM Analysis Method : BX20406B.MTH Report Created on: 30 Apr 95 08:50 PM Sample Amount : 0 Last Recalib on : 30 APR 95 08:02 PM

Multiplier

: 1

ISTD Amount



: C:\HPCHEM\2\DATA\BX20406\016R0801.D Data File Name : C.J. Cook Page Number Operator : BTEX2 Vial Number : 16 Instrument : X04852MSD;1;5 Injection Number: 1 Sample Name Sequence Line Run Time Bar Code: Acquired on : 06 Apr 95 08:10 PM Report Created on: 30 Apr 95 08:33 PM Instrument Method: BX204(: BX2040. .MZ Analysis Method Last Recalib on : 30 APR 95 08:02 PM Sample Amount : 0 ISTD Amount Multiplier : Project#: 95-0983 Client#: MW 56-10 Water Sample Info

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: 56MP-6D

Client Project No.

: 722450.21020/PARSONS

Lab Sample No.

: X04853

Lab Project No. EPA Method No. : 95-0983 : 5030/8015 Mod.

Date Sampled

: 3/26/95 : 3/28/95

Matrix

: Water

Date Received
Date Prepared

: 3/28/95 : 4/7/95

Method Blank

: MB040895

Date Analyzed

: 4/7/95

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	2.00	0.00	2.14	107%	60-140

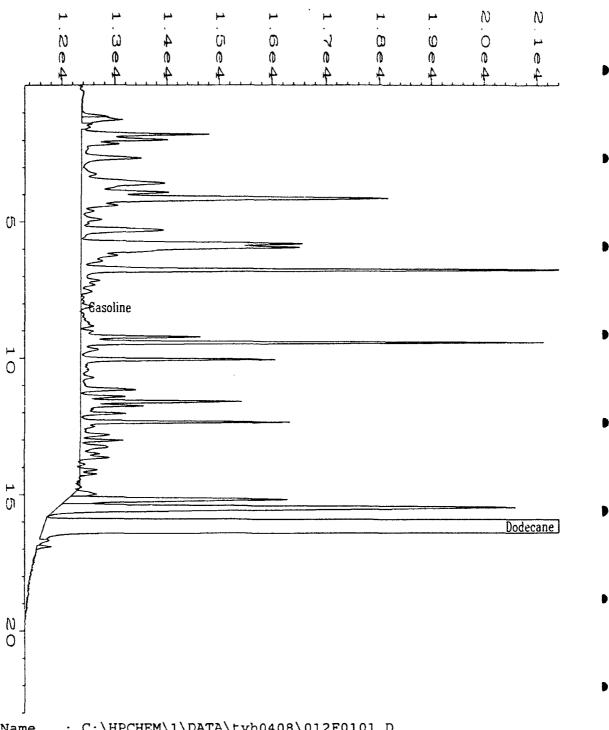
	Spike	MSD			٥	C
Compound	Added	Concentration	MS	RPD	Lin	nits
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	2.00	1.69	85%	23	50	60-140

RPD:	O out of (1) outside limits.	
Spike Recovery:	O out of (2) outside limits.	

Comments:

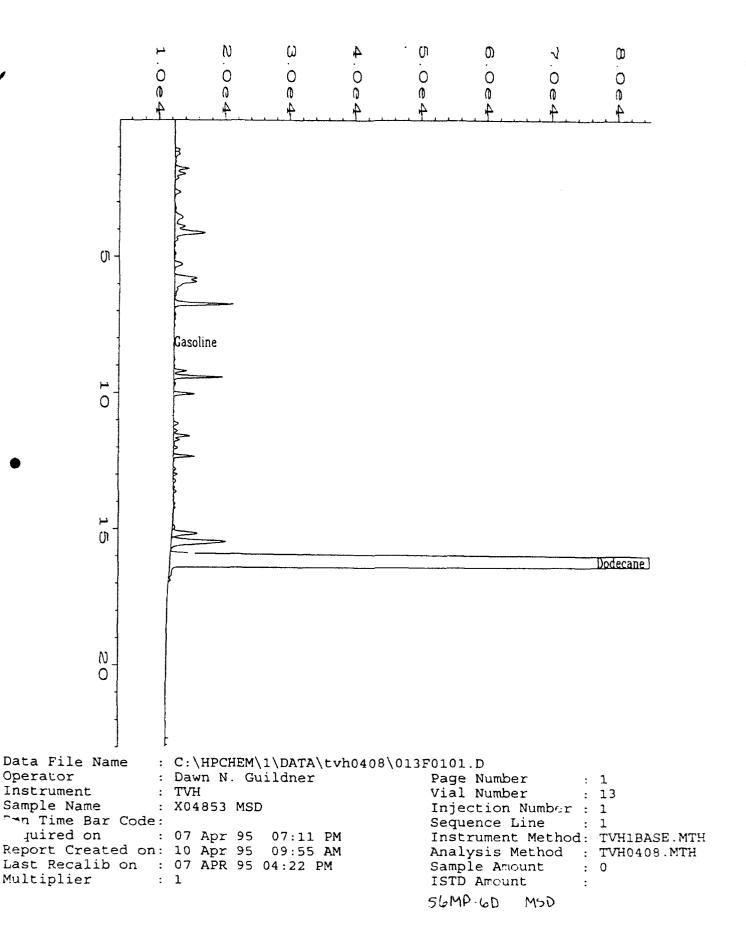
* = Values outside of QC limits.

NA = Not analyzed/not applicable.



Data File Name : C:\HPCHEM\1\DATA\tvh0408\012F0101.D Operator : Dawn N. Guildner Page Number Instrument : TVH Vial Number : 12 Sample Name : X04853 MS Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 07 Apr 95 06:35 PM Instrument Method: TVH1B. ... N Report Created on: 10 Apr 95 Analysis Method : TVH0408.MC 09:55 AM Last Recalib on : 07 APR 95 04:22 PM Sample Amount ISTD Amount Multiplier

56MP-60 MS



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Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 30033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: MW56-9

Client Project No.

: 722450.21020

Lab Sample No.
Date Sampled

: X04861 : 3/27/95 Lab Project No. EPA Method No.

: 5030/8015 Mod.

Date Received
Date Prepared

: 3/28/95 : 4/10/95

Matrix Method Blank : Water : MB041095

: 95-0983

Date Analyzed

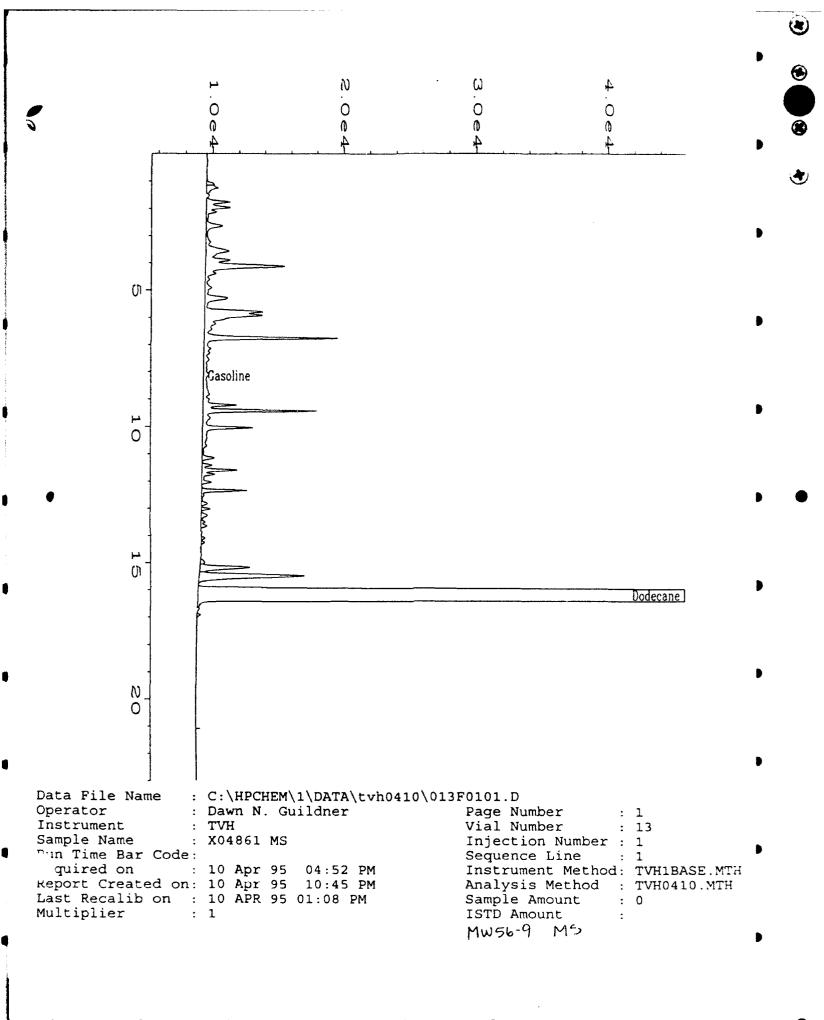
: 4/10/95

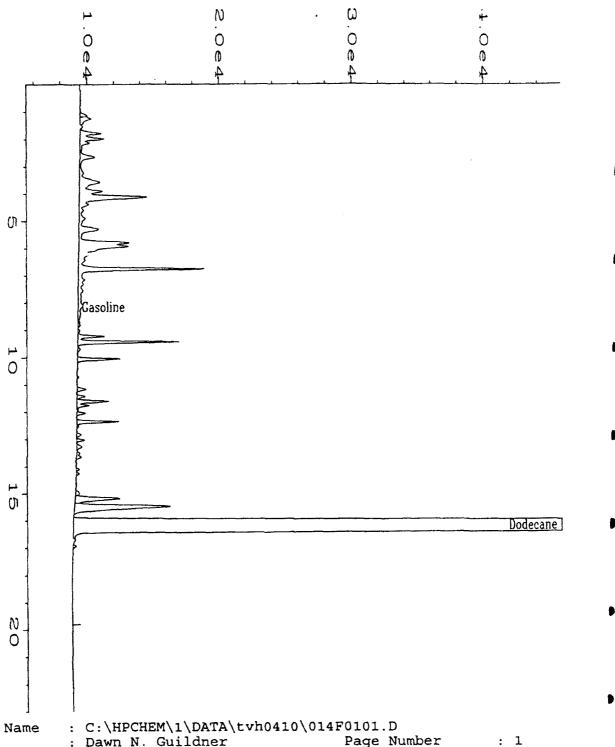
	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	2.00	0.00	2.20	110%	60-140

	Spike	MSD			C	1C
Compound	Added	Concentration	MS	RPD	Lir	nits
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	2.00	1.74	87%	23	50	60-140

*= Values outside	of QC limits.
RPD:	out of (1) outside limits.
Spike Recovery:	0 out of (2) outside limits.
Comments:	NA = Not analyzed/not applicable.

fr





Data File Name Page Number : 1 : Dawn N. Guildner Operator : TVH Vial Number : 14 Instrument Injection Number: 1 : X04861 MSD Sample Name Sequence Line : 1 Run Time Bar Code: Instrument Method: TVH1B : 10 Apr 95 05:28 PM Acquired on Report Created on: 10 Apr 95 10:45 PM Analysis Method : TVH04. .M' Last Recalib on : 10 APR 95 01:08 PM Sample Amount ISTD Amount Multiplier

MW56-9 MSD

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: 56MP-5D

Client Project No.

: 722450.2102*0*

Lab Sample No.

: X04866 : 3/27/95 Lab Project No. EPA Method No. : 95-0983 : 5030/8015 Mod.

Date Sampled
Date Received

: 3/27/95 : 3/28/95 : 4/10/95

Matrix Method Blank : Water : MB041095

Date Prepared Date Analyzed

: 4/10/95

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	2.00	0.00	1.93	97%	60-140

	Spike	MSD			C	1C
Compound	Added	Concentration	MS	RPD	Lir	nits
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	2.00	1.99	100%	3	50	60-140

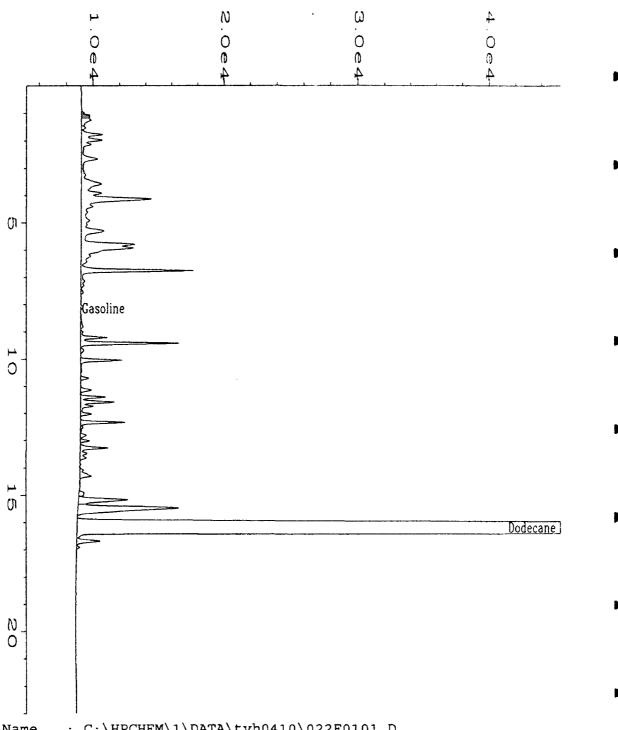
RPD:	0	out of	(1)	outside limits.
Spike Recovery:	0	out of	(2)	outside limits.

Comments:

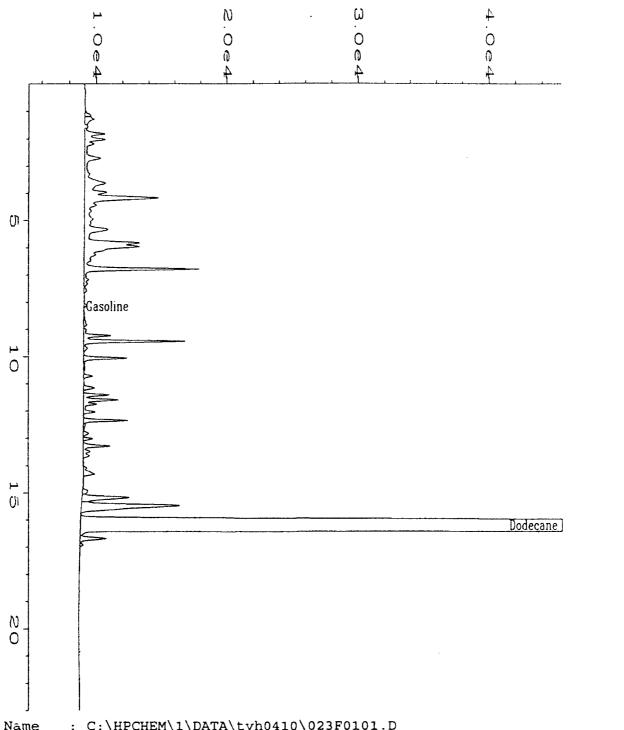
NA = Not analyzed/not applicable.

112

* = Values outside of QC limits.



Data File Name :	C:\HPCHEM\1\DATA\tvh0410\022I	F0101.D
Operator :	Dawn N. Guildner	Page Number : 1
Instrument :	TVH	Vial Number : 22
Sample Name :	X04866 MS	Injection Number : 1
Run Time Bar Code:		Sequence Line : 1
Acquired on :	10 Apr 95 10:16 PM	Instrument Method: TVH1BA. !
Report Created on:	10 Apr 95 10:47 PM	Analysis Method : TVH0410.MTF
Last Recalib on :	10 APR 95 01:08 PM	Sample Amount : 0
Multiplier :	1	ISTD Amount :
		SLMP-5D MS



Data File Name : C:\HPCHEM\1\DATA\tvh0410\023F0101.D Page Number Vial Number Operator : Dawn N. Guildner Instrument : TVH : 23 Sample Name : X04866 MSD Injection Number: 1 Sequence Line Run Time Bar Code: quired on : 10 Apr 95 10:52 PM Instrument Method: TVH1BASE.MTH ...port Created on: 11 Apr 95 10:09 AM Analysis Method : TVH0410.MTH Last Recalib on : 10 APR 95 01:08 PM Sample Amount ISTD Amount Multiplier 56 MP-5D MSD

Method 602 Data Report Method Blank Report

Method Blank Number

: MB040595

Client Project No.

: 722450.21020/MacDill

Date Prepared

: 4/5/95

Lab Project No.

: 95-0983

Date Analyzed

: 4/5/95

Dilution Factor

: 1.00

Method

: 602/8020

Matrix

: Water

Lab File No.

: BX2040509

	Sample				
Compound Name	Cas Number	Concentration	RL		
		ug/L	ug/L		
Benzene	71-43-2	U	0.4		
Toluene	108-88-3	U	0.4		
Chlorobenzene	108-90-7	υ	0.4	-	
Ethyl Benzene	100-41-4	υ	0.4		
Total Xylenes	108-38-3, 106-42-3	U	0.4		
'(m, p & o)	and 95-47-6			١	
1,3,5-Trimethylbenzene	108-67-8	U	0.4		
1,2,4-Trimethylbenzene	95-63-6	U	0.4		
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	ı	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	·	
Surrogate Recovery (α,α,α-Trifluc	protoluene):	93%	70%-130% (QC limits)	-	

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

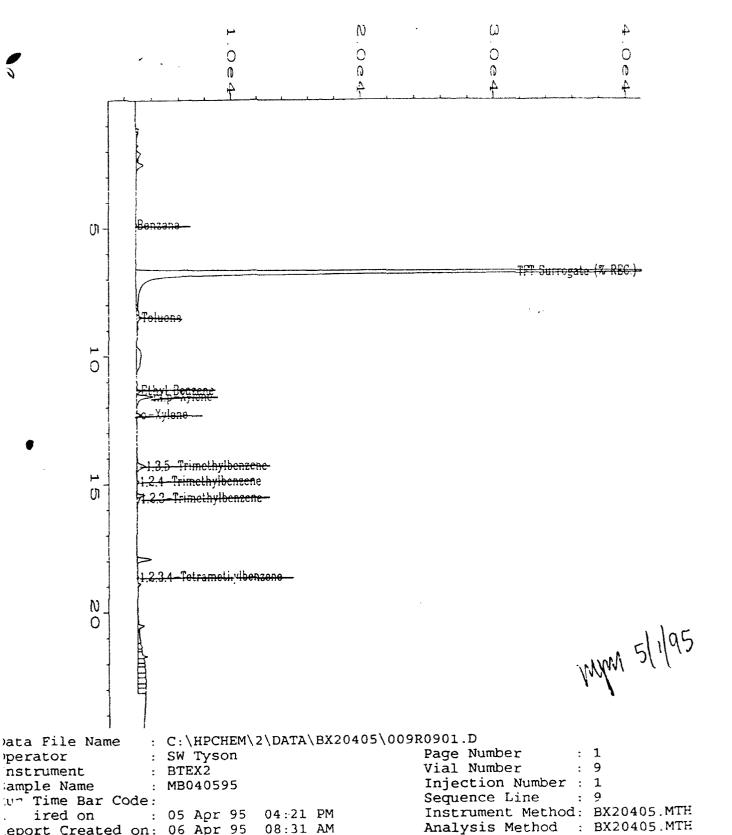
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available Mot Applicable.



eport Created on: 06 Apr 95 08:31 AM Analysis Method : Bi ast Recalib on : 06 APR 95 08:23 AM Sample Amount : 0 Ultiplier : 1 ISTD Amount :

Method 602 Data Report Method Blank Report

Method Blank Number

: MB040695

Client Project No.

: 722450.21020/MacDi

Date Prepared

: 4/6/95

Lab Project No.

: 95-0983

Date Analyzed

: 4/6/95

Dilution Factor

: 1.00

Method

Matrix

: 602/8020

: Water

Lab File No.

: BX2040609

	Sample				
Compound Name	Cas Number	Concentration		RL	
•		ug/L	u	ıg/L	
Benzene	71-43-2	U	C).4	
Toluene	108-88-3	U	C).4	
Chlorobenzene	108-90-7	U	C	0.4	
Ethyl Benzene	100-41-4	υ	C).4	
Total Xylenes	108-38-3, 106-42-3	0.6	C).4	
(m, p & o)	and 95-47-6				
1,3,5-Trimethylbenzene	108-67-8	U	C).4	
1,2,4-Trimethylbenzene	95-63-6	υ	O).4	
1,2,3-Trimethylbenzene	526-73-8	U	0),4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0	2.4	
Surrogate Recovery (α,α,α-Trifluo	rotoluene):	105%	7	0%-130% (QC limits	

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

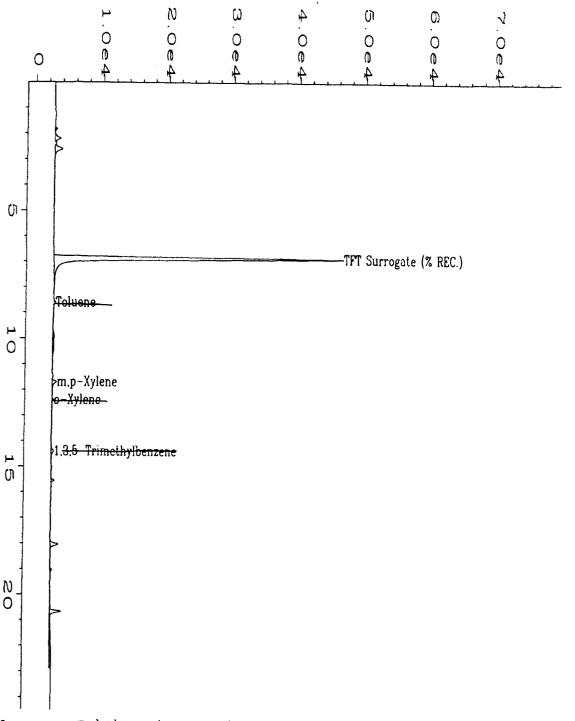
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.



Data File Name : D:\2\DATA\BX20406\009R0801.D Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number Sample Name : MB040695 Injection Number : 1 in Time Bar Code: Sequence Line : 8 acquired on : 06 Apr 95 02:47 PM Instrument Method: BX20406.MTH Report Created on: 30 Apr 95 08:14 PM Analysis Method : BX20406B.MTH

Last Recalib on : 30 Apr 95 08:02 PM Sample Amount

: 1 Multiplier ISTD Amount

Method 602 Data Report Method Blank Report

Method Blank Number

: MB040795

Client Project No.

: 722450.21020/MacDill

Date Prepared

: 4/7/95

Lab Project No.

: 95-0983

Date Analyzed : 4/7/95

Dilution Factor

: 1.00

Method Matrix : 602/8020

Matrix

: Water

Lab File No.

: BX2040709

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	+
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	!
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	U	0.4	•
1,3,5-Trimethylbenzene	108-67-8	บ	0.4	•
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	ı
				•

Surrogate Recovery (\alpha, \alpha, \alpha-Trifluorotoluene):

96%

U

0.4

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

1,2,3,4-Tetramethylbenzene

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

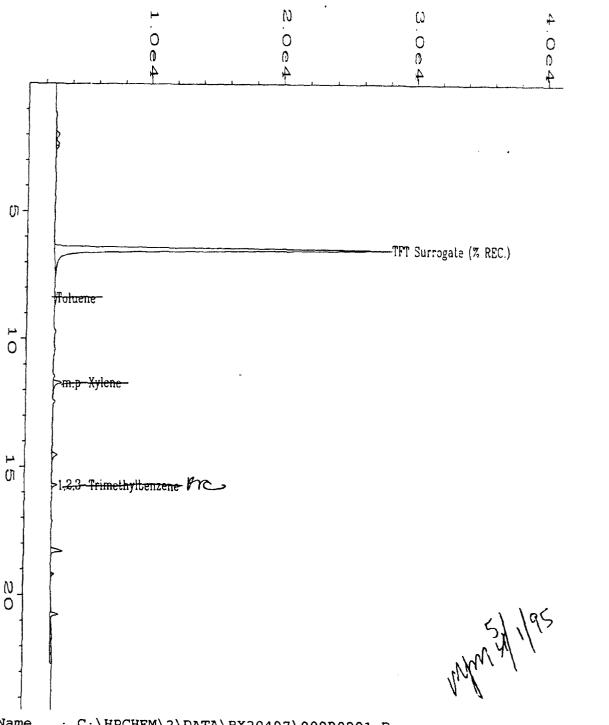
488-23-3

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



Data File Name : C:\HPCHEM\2\DATA\BX20407\009R0901.D Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number Sample Name : MB040795 Injection Number: 1 n Time Bar Code: Sequence Line : 9 Report Created on: 01 May 95 03:26 PM Last Recalib on: 10 APR 95 07:26 AM Instrument Method: BX20407.MTH Analysis Method : BX20407B.MTH Sample Amount : 0 Multiplier ISTD Amount

.

Method 602 Data Report Method Blank Report

Method Blank Number

: MB040895

Client Project No.

: 722450.21020/MacDill

Date Prepared

: 4/8/95

Lab Project No.

: 95-0983

Date Analyzed

: 4/8/95

Dilution Factor

: 1.00 : 602/8020

Method Matrix

: Water

Lab File No.

: BX2040810

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	
Ethyl Benzene	100-41-4	υ	0.4	
Total Xylenes	108-38-3, 10 6-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	
Surrogate Recovery (α,α,α-Trifluo	rotoluene).	104%	70%-130% (QC limi	ite)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

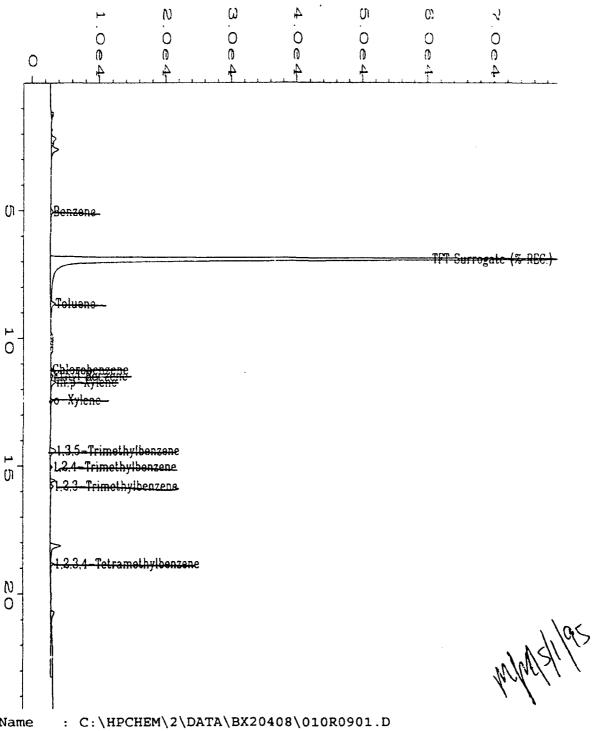
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

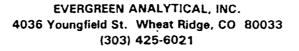
RL = Reporting Limit.

NA = Not Available/Not Applicable.



Data File Name Operator : S.W. Tyson Page Number : 10 Instrument : BTEX2 Vial Number : MB040895 Sample Name Injection Number: 1 Sequence Line : 9 F - Time Bar Code: Instrument Method: BX20408.MTH . uired on : 08 Apr 95 04:07 PM Report Created on: 09 Apr 95 Analysis Method : BX20408.MTH 02:24 PM Last Recalib on : 09 Apr 95 02:21 PM Sample Amount : 0

Multiplier : 1 ISTD Amount



Method 602 Data Report

Client Sample Number : Trip Blank Client Project No. : 722450.21020/MacDil : X04870 Lab Project No. : 95-0983 Lab Sample Number **Date Sampled Dilution Factor** : 1.00 : NA **Date Received** : 3/28/95 Method : 602 **Date Prepared** : 4/7/95 Matrix : Water : 4/8/95 Lab File No. : BX2040725 **Date Analyzed** Method Blank No. : MB040795

Sample				
Cas Number	Concentration	RL		
	ug/L	ug/L		
71-43-2	U	0.4		
108-88-3	υ	0.4		
108-90-7	U	0.4	l	
100-41-4	U	0.4		
108-38-3, 106-42-3	U	0.4		
and 95-47-6			1	
108-67-8	U	0.4	•	
95-63-6	U	0.4		
526-73-8	U	0.4	1	
488-23-3	U	0.4	1	
	71-43-2 108-88-3 108-90-7 100-41-4 108-38-3, 106-42-3 and 95-47-6 108-67-8 95-63-6 526-73-8	Cas Number Concentration ug/L 71-43-2 U 108-88-3 U 108-90-7 U 100-41-4 U 108-38-3, 106-42-3 and 95-47-6 108-67-8 U 95-63-6 U 526-73-8 U	Cas Number Concentration ug/L RL ug/L 71-43-2 U 0.4 108-88-3 U 0.4 108-90-7 U 0.4 100-41-4 U 0.4 108-38-3, 106-42-3 and 95-47-6 108-67-8 U 0.4 95-63-6 U 0.4 526-73-8 U 0.4	

79%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

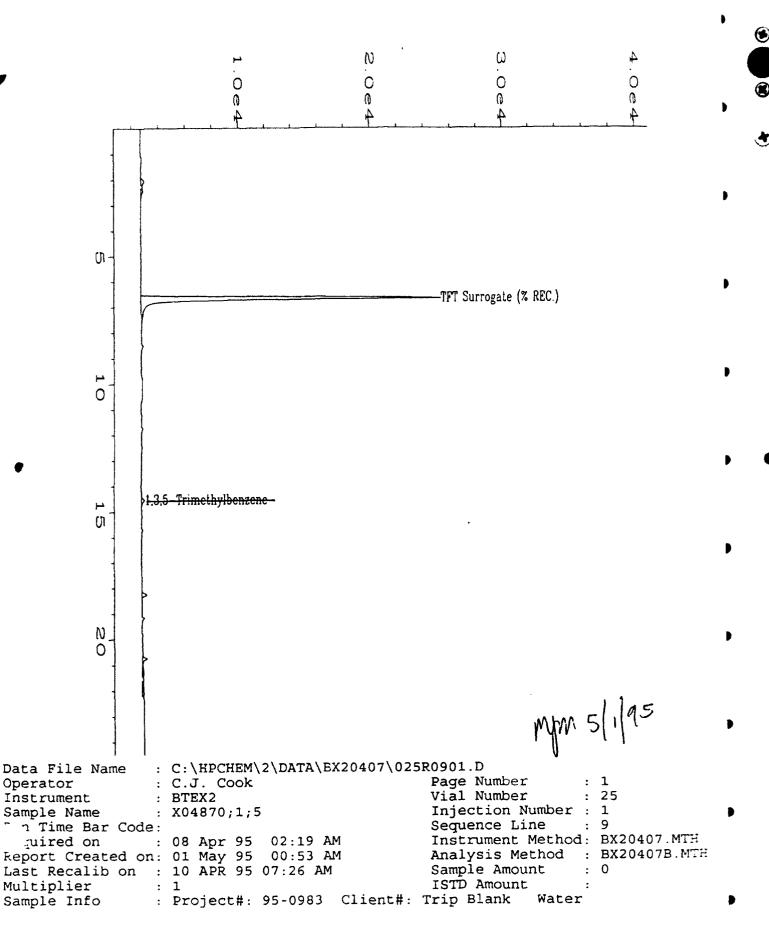
RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved

70%-130% (QC limits)



BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS040595 Date Extracted/Prepared : 4/5/95 Dilution Factor Method : 1.00 : 602 : Water

Date Analyzed
Spike Amount (ug/L)

: 4/5/95 : 20.0

Matrix Lab File No.

: BX2040510

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery	
Benzene	71-43-2	15.8	79.0	71.0-119.0*	-
Toluene	108-88-3	16.2	81.0	73.0-111.0*	
Chlorobenzene	108-90-7	16.3	81.5	64.0-119.0*	1
Ethyl Benzene	100-41-4	16.6	83.0	75.0-114.0*	
m,p-Xylene	108-38-3 106-42-3	17.6	88.0	75.0-114.0*	
o-Xylene	95-47-6	16.7	83.5	64.0-1	1
1,3,5-Trimethylbenzene	108-67-8	16.9	84.5	50.0-150.0	
1,2,4-Trimethylbenzene	95-63-6	17.4	87.0	50.0-150.0	
1,2,3-Trimethylbenzene	526-73-8	20.1	100.5	50.0-150.0	(
1,2,3,4-Tetramethylbenzene	488-23-3	17.9	89.5	50.0-150.0	
Surrogate Recovery (α,α,α-Trifluorotoluene):		93%	70%-130%	(QC limits)	-

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

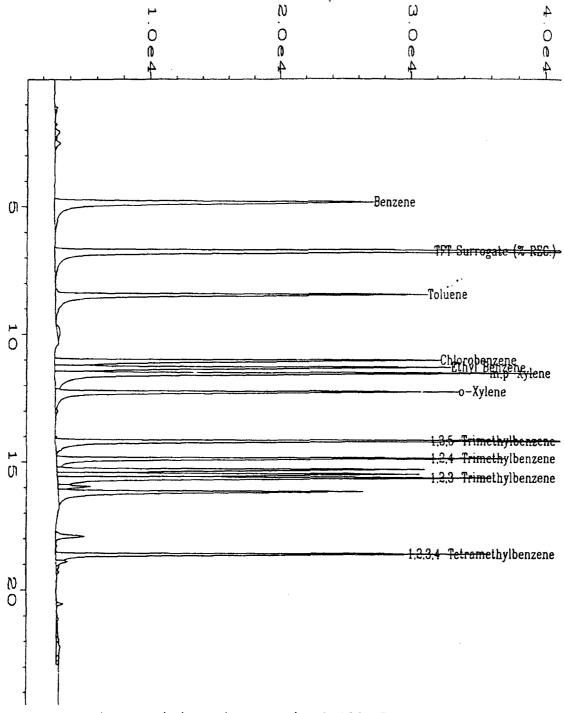
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

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Approved

^{* =} Limits established 4/3/95 KSC



ata File Name : C:\HPCHEM\2\DATA\BX20405\010R0901.D Page Number perator : SW Tyson Vial Number ıstrument : 10 : BTEX2 Injection Number: 1 imple Name : LCS040595 : 9 ir Time Bar Code: Sequence Line Instrument Method: BX20405.MTH red on : 05 Apr 95 05:07 PM Analysis Method : BX20405.MTH port Created on: 06 Apr 95 08:32 AM st Recalib on : 06 APR 95 08:23 AM Sample Amount : 0

ISTD Amount

ltiplier

: 1

BTEX Data Report Laboratory Control Sample (LCS)

: LCS040695 **Dilution Factor** : 1.00 **LCS Number** Method Date Extracted/Prepared : 4/6/95 : 602 : 4/6/95 Matrix : Water Date Analyzed Lab File No. Spike Amount (ug/L) : 20.0 : BX2040610

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery	
Benzene	71-43-2	16.8	84.0	71.0-119.0*	•
Toluene	108-88-3	16.5	82.5	73.0-111.0*	
Chlorobenzene	108-90-7	17.5	87.5	64.0-119.0*	i
Ethyl Benzene	100-41-4	16.5	82.5	75.0-114.0*	
m,p-Xylene	108-38-3	18.0	90.0	75.0-114.0*	
o-Xylene	106-42-3 95-47-6	16.6	83.0	64.0-11	
1,3,5-Trimethylbenzene	108-67-8	16.0	0.08	50.0-150.0	
1,2,4-Trimethylbenzene	95-63-6	17.5	87.5	50.0-150.0	
1,2,3-Trimethylbenzene	526-73-8	19.8	99.0	50.0-150.0	İ
1,2,3,4-Tetramethylbenzene	488-23-3	17.9	89.5	50.0-150.0	
Surrogate Recovery (α,α,α-Trifluor	otoluene):	106%	70%-130%	(QC limits)	

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

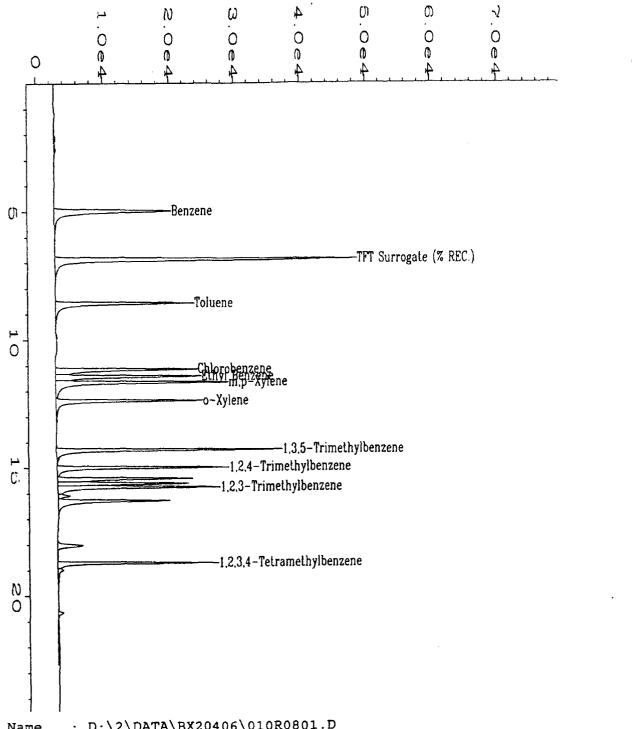
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst

Approved Approved

^{* =} Limits established 4/3/95 KSC



: D:\2\DATA\BX20406\010R0801.D Data File Name Page Number : C.J. Cook Operator : 10 Vial Number : BTEX2 Instrument Injection Number: 1 : LCS040695 Sample Name Sequence Line n Time Bar Code: Instrument Method: BX20406.MTH 03:32 PM : 06 Apr 95 ...guired on Analysis Method : BX20.06B.MTH 08:13 PM Report Created on: 30 Apr 95 : 0 Sample Amount Last Recalib on : 30 Apr 95 08:02 PM ISTD Amount Multiplier

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS040795
Date Extracted/Prepared : 4/7/95
Date Analyzed : 4/7/95

Dilution Factor Method : 1.00 : 602 : Water

Spike Amount (ug/L)

: 4/7/95 : 20.0 Matrix Lab File No.

: BX2040710

Compound Name	Cas Number	LCS Concentration rg/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.7	83.5	71.0-119.0*
Toluene	108-88-3	16.4	82.0	73.0-111.0*
Chlorobenzene	108-90-7	18.1	90.5	64.0-119.0*
Ethyl Benzene	100-41-4	17.1	85.5	75.0-114.0*
m,p-Xylene	108-38-3 106-42-3	18.3	91.5	75.0-114.0*
o-Xylene	95-47-6	17.1	85.5	64.0-11 '
1,3,5-Trimethylbenzene	108-67-8	17.8	89.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.9	89.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.8	104.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	18.6	93.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	97%	70%-130%	(QC limits)

* = Limits established 4/3/95 KSC

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

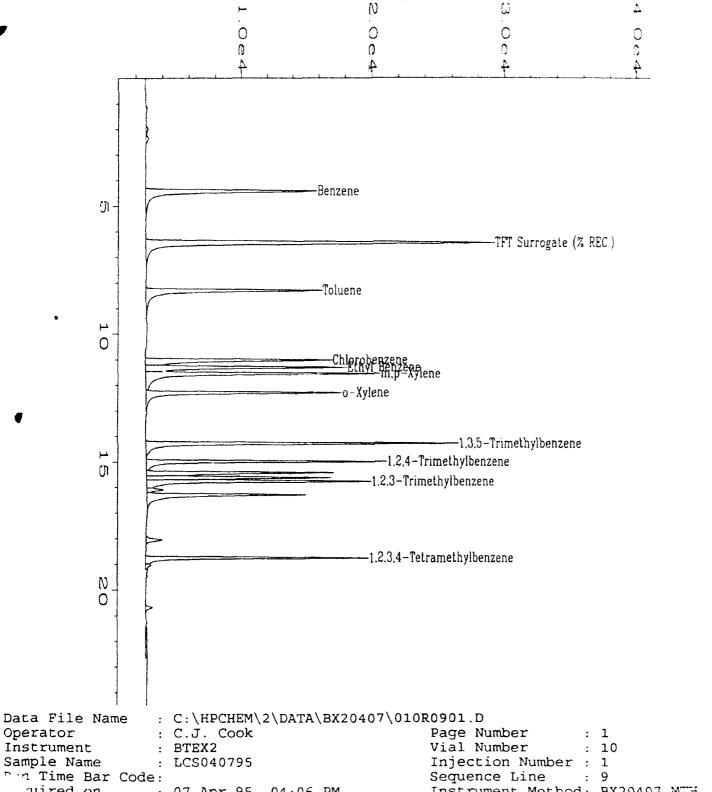
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst

Approved-



Operator Instrument Sample Name n n Time Bar Code: quired on : 07 Apr 95 04:06 PM Instrument Method: BX20407.MTH keport Created on: 01 May 95 00:39 AM Last Recalib on : 10 APR 95 07:26 AM Analysis Method : BX20407B.MTH

: 0 Sample Amount

ISTD Amount Multiplier

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS040895 **Dilution Factor** : 1.00 Method Date Extracted/Prepared : 4/8/95 : 602 : 4/8/95 Matrix **Date Analyzed** : Water Spike Amount (ug/L) : 20.0 Lab File No. : BX2040811

Compound Name	Cas Numbe r	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.9	79.5	71.0-119.0*
Toluene	108-88-3	16.4	82.0	73.0-111.0*
Chlorobenzene	108-90-7	15.9	79.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.6	83.0	75.0-114.0*
m,p-Xylene	108-38-3	16.9	84.5	75.0-114.0°
o-Xylene	106-42-3 95-47-6	15.2	76.0	64.0-11!
1,3,5-Trimethylbenzene	108-67-8	16.2	81.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.9	89.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	21.7	108.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.6	88.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	98%	70%-130%	(QC limits)

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

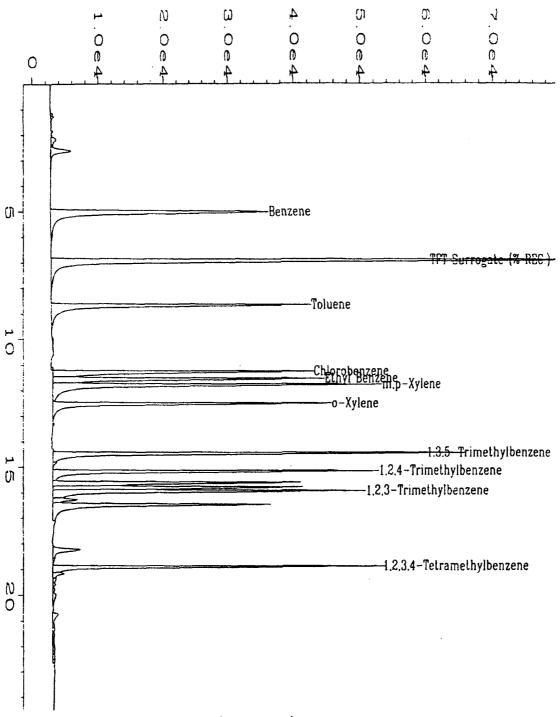
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst

Approved

^{* =} Limits established 4/3/95 KSC



(4)

: C:\HPCHEM\2\DATA\BX20408\011R0901.D Data File Name Page Number : 1 Operator : S.W. Tyson : BTEX2 Vial Number : 11 Instrument Injection Number: 1 Sample Name : LCS040895 Sequence Line : 9 Time Bar Code: Instrument Method: BX20408.MTH 04:54 PM

Report Created on: 09 Apr 95 04:54 PM Instrument Method: BX20408.MTH
Last Recalib on: 09 Apr 95 02:25 PM Analysis Method: BX20408.MTH
Sample Amount: 0

Multiplier : 1 Sample Amount :

TOTAL VOLATILE HYDROCARBONS (TVH-GASOLINE)

Date Sampled : 3/24,26/95 Client Project Number : 722450.21020

Date Received : 3/28/95 Lab Project Number : 95-0983
Date Prepared : 4/3,7/95 Matrix : Water

Date Analyzed : 4/3,4,7,8/95 Method Number : 5030/Mod.8015

Evergreen	Client	Surrogate	TVH	RL
Sample #	Sample #	Recovery	mg/L	mg/L
MB040395	METHOD BLANK	100%	U	0.1
MB040895	METHOD BLANK	100%	U	0.1
MB041095	METHOD BLANK	100%	υ	0.1
X04848	24 PZ-1S	98%	0.5	0.1
X04849	24 PZ-1D	99%	U	0.1
X04850	24 MP-6S	100%	U	0.1
X04851	MD32-3	96%	U	0.1
X04852	MW56-10	101%	1.0	0.1
X04853	56MP-6D	98%	U	0.1
X04854	56MP-6S	94%	U	0.1
X04854 DUP	56MP-6S	92%	U	0.1
X04855	MW56-1	90%	U	0.1
X04856	MW56-21	92%	U	0.1
X04857	56MP-8S	97%	U	0.1
X04858	56MP-10S	96%	U	0.1
X04859	MW56-2	92%	บ	0.1
X04859 DUP	MW56-2	91%	U	0.1
X04860	MW56-8	91%	0.2	0.1

QUALIFIERS

U = TVH analyzed for but not detected.

B = TVH found in blank.

E = Extrapolated value.

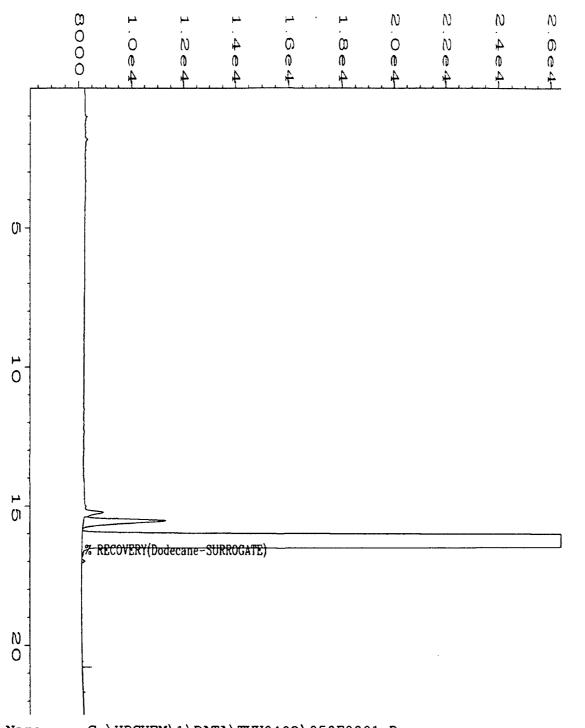
RL = Reporting Limit.

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TVH0983.XLS



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Data File Name : C:\HPCHEM\1\DATA\TVH0402\050F0801.D

Operator : S.W. Tyson Page Number : 1

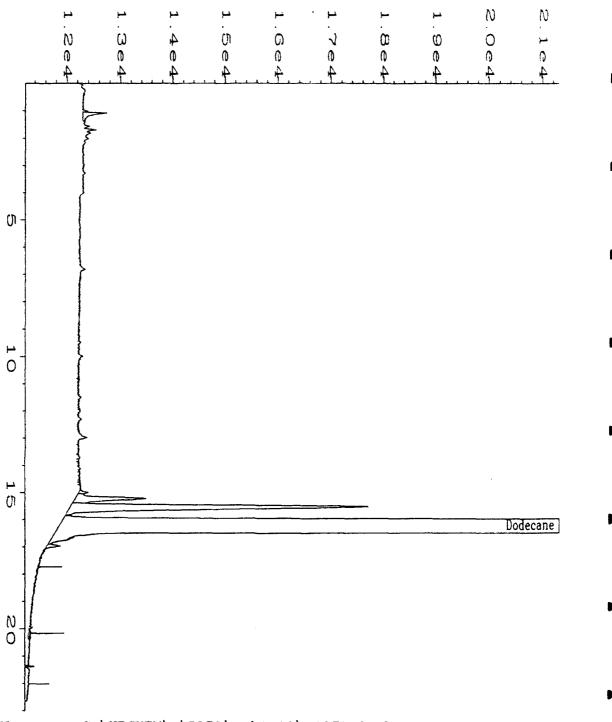
Instrument : TVH Vial Number : 50

Sample Name : MB040395 Injection Number : 1

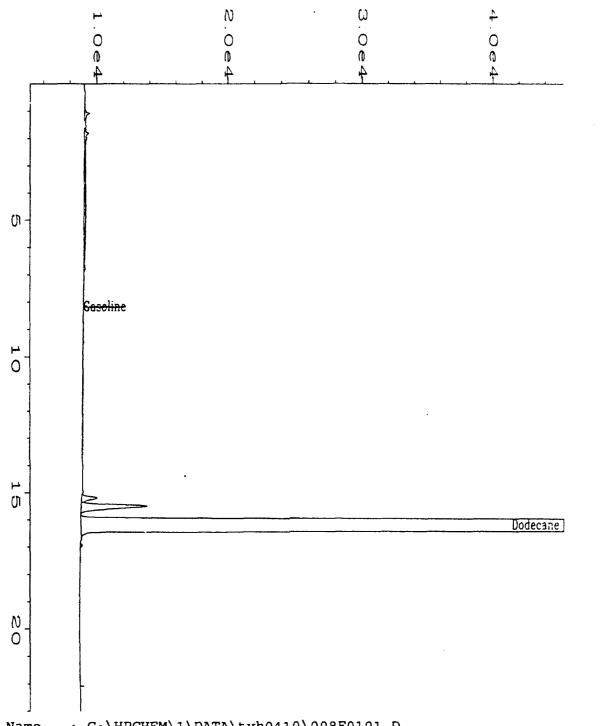
Sample Name : MB040395 Injection Number : 1
Pun Time Bar Code: Sequence Line : 8

quired on : 03 Apr 95 08:52 PM Instrument Method: TVH0402.MTH Report Created on: 11 Apr 95 11:16 AM Analysis Method : TVH0402.MTH Last Recalib on : 02 APR 95 01:38 PM Sample Amount : 0

Last Recalib on : 02 APR 95 01:38 PM Sample Amount : Multiplier : 1 ISTD Amount :



Data File Name : C:\HPCHEM\1\DATA\tvh0408\009F0101.D Operator : Dawn N. Guildner Page Number Instrument : TVH Vial Number Sample Name : MB040895 Injection Number: 1 Run Time Bar Code: Sequence Line Acquired on : 07 Apr 95 04:47 PM Instrument Method: TVH1B/ Report Created on: 10 Apr 95 09:55 AM Analysis Method : TVH0400.MT Last Recalib on : 07 APR 95 04:22 PM Sample Amount : 0 ISTD Amount Multiplier

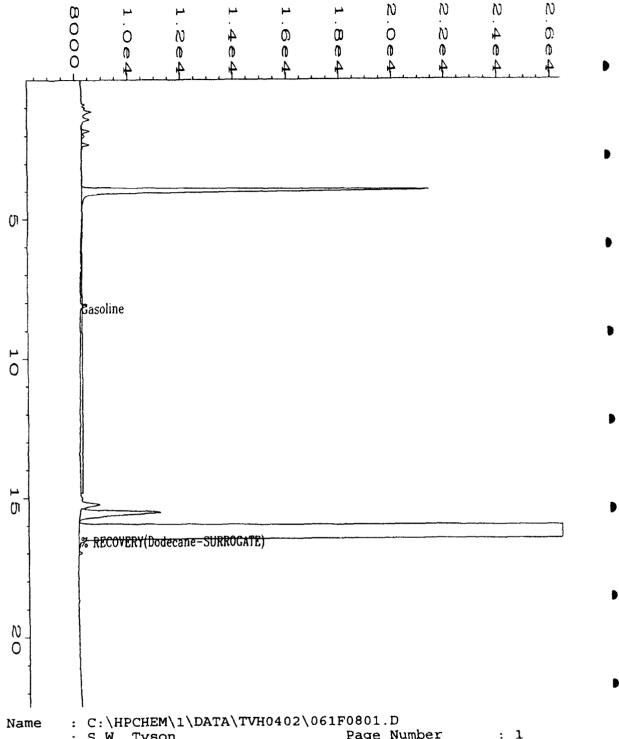


Data File Name : C:\HPCHEM\1\DATA\tvh0410\008F0101.D Operator : Dawn N. Guildner Page Number : 1 Instrument : TVH Vial Number : 8 Sample Name : MB041095 Injection Number: 1 Run Time Bar Code: Sequence Line : 1

ruired on : 10 Apr 95 01:52 PM Instrument Method: TVH1BASE.MTH
Laport Created on: 10 Apr 95 03:05 PM Analysis Method : TVH0410.MTH
Last Recalib on : 10 APR 95 01:08 PM Sample Amount : 0

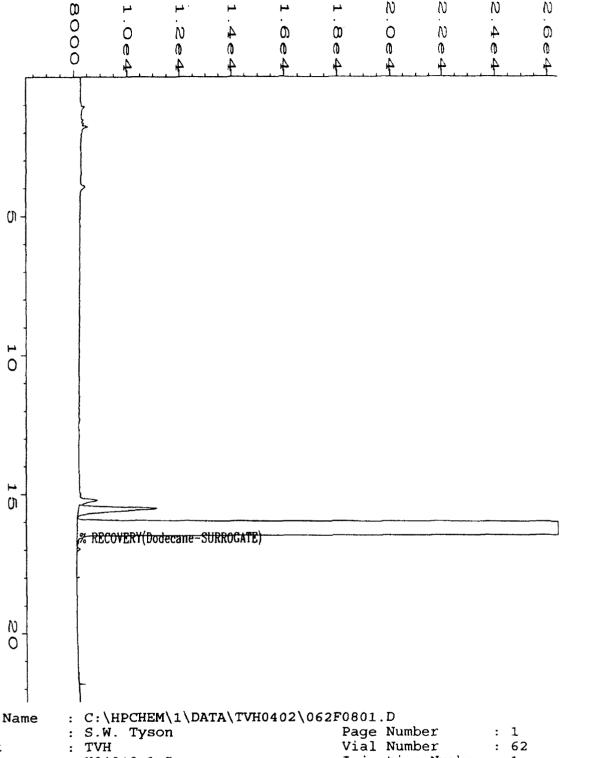
Last Recalib on : 10 APR 95 01:08 PM Sample Amount : Multiplier : 1 ISTD Amount :

20/06/2 mg



Data File Name : S.W. Tyson Page Number Operator Vial Number : 61 Instrument : TVH Injection Number : 1 : X04848;1;5 Sample Name Sequence Line : 8 Run Time Bar Code: Instrument Method: TVH040 : 04 Apr 95 03:05 AM Acquired on Report Created on: 11 Apr 95 11:14 AM Analysis Method : TVH0402.MT Sample Amount Last Recalib on : 02 APR 95 01:38 PM ISTD Amount Multiplier : 1

Client # 24 PZ-15



Data File Name

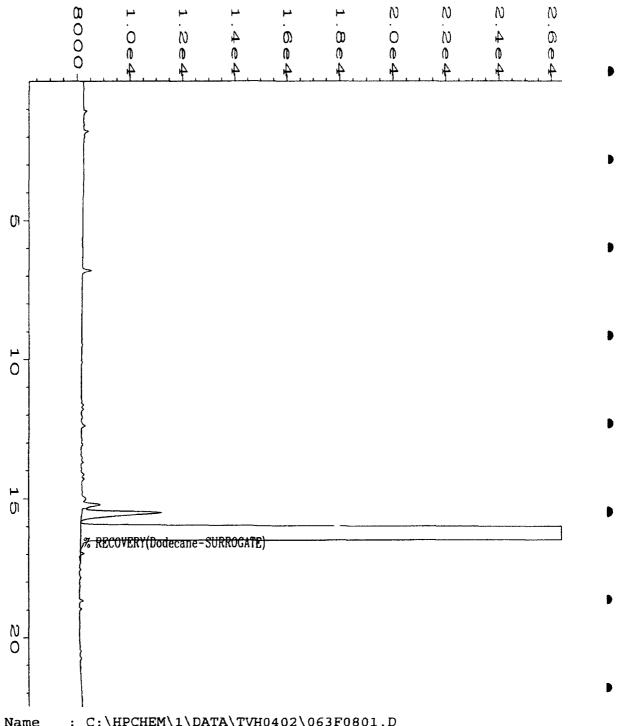
Operator Instrument Injection Number: 1 : X04849;1;5 Sample Name

Run Time Bar Code:

Sequence Line : 8 : 04 Apr 95 03:39 AM Instrument Method: TVH0402.MTH quired on Maport Created on: 11 Apr 95 11:14 AM Analysis Method : TVH0402.MTH Last Recalib on : 02 APR 95 01:38 PM Sample Amount

ISTD Amount Multiplier

24PZ-1D



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Data File Name
                 : C:\HPCHEM\1\DATA\TVH0402\063F0801.D
Operator
                 : S.W. Tyson
                                                Page Number
                                                Vial Number
Instrument
                 : TVH
                                                                 : 63
                 : X04850;1;5
Sample Name
                                                Injection Number: 1
Run Time Bar Code:
                                                Sequence Line
                : 04 Apr 95 04:13 AM
Acquired on
                                                Instrument Method: TVH04
Report Created on: 11 Apr 95
                             11:15 AM
                                                Analysis Method : TVH0402.MI
Last Recalib on : 02 APR 95 01:38 PM
                                                Sample Amount
                                                                 : 0
                                                ISTD Amount
Multiplier
```

24MP-65



TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

Method Number

LCS Number

: LCS040295

Matrix

: WATER

: 5030/MOD.8015

Date Prepared

: 4/1/95

Date Analyzed

Compound Name

Gasoline

: 4/2/95

Sequence Number

: TVH8

Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
2.00	2 18	109%	70%-130%

QUALIFIERS

U = TVH analyzed for but not detected.

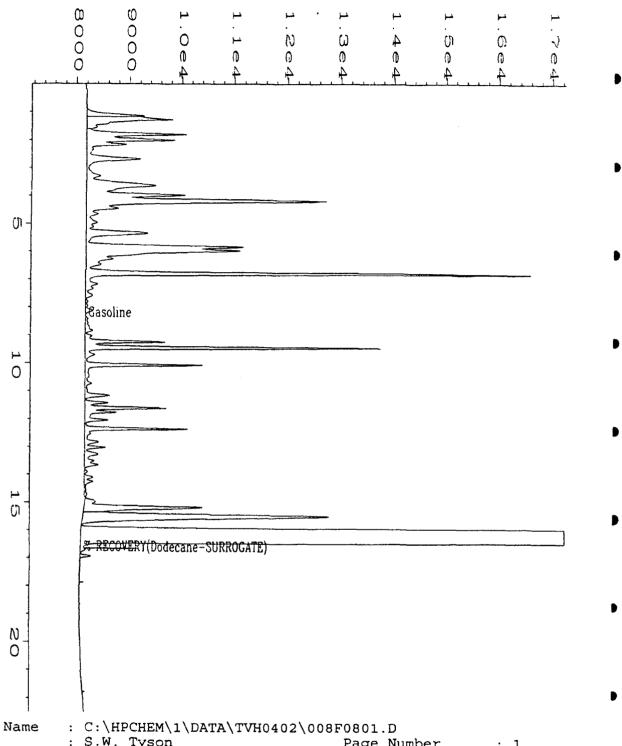
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

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Approved



Data File Name Operator : S.W. Tyson Page Number Instrument : TVH Vial Number Sample Name : LCS040295 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Acquired on : 02 Apr 95 02:20 PM Instrument Method: TVH04(Report Created on: 11 Apr 95 11:18 AM Analysis Method : TVH0402.MT Last Recalib on : 02 APR 95 01:38 PM Sample Amount : 0 Multiplier ISTD Amount

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TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

Matrix

Method Number

LCS Number

: LCS040895

: WATER

Date Prepared

: 4/7/95

Date Analyzed

: 4/7/95

Sequence Number

: TVH8

: 5030/MOD.8015

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	5.00	5.38	108%	70%-130%

QUALIFIERS

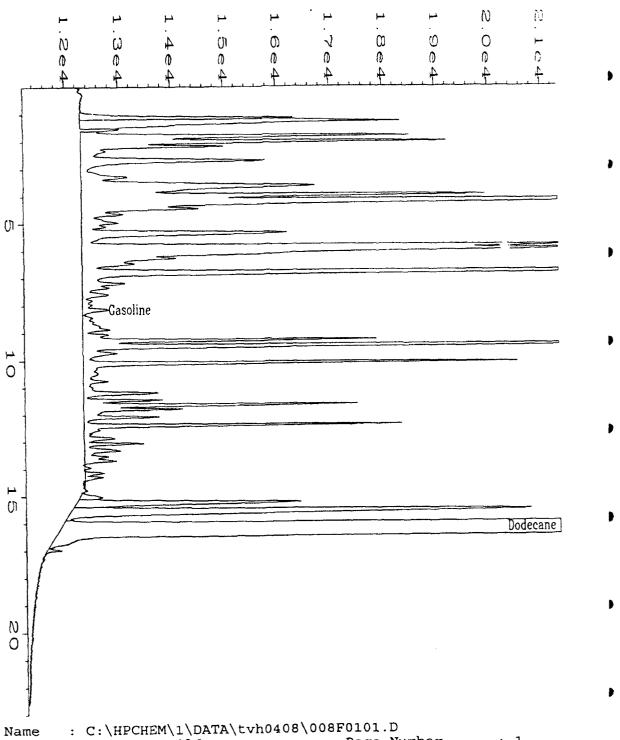
U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

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Data File Name Page Number : Dawn N. Guildner Operator Vial Number : 8 : TVH Instrument Injection Number: 1 : LCS040895 Sample Name : 1 Sequence Line Run Time Bar Code: Instrument Method: TVH1B : 07 Apr 95 04:11 PM Acquired on : TVH040a.MT Analysis Method Report Created on: 10 Apr 95 09:54 AM Sample Amount : 0 Last Recalib on : 07 APR 95 04:22 PM ISTD Amount Multiplier

TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

Matrix

LCS Number

: LCS041095

: WATER

Date Prepared

: 4/10/95

: 5030/MOD.8015

Date Analyzed Sequence Number : 4/10/95 : TVH7

Compound Name

Theoretical Concentration mg/L

LCS Concentration mg/ L

Method Number

LCS % Recovery

QC Limit % Recovery

Gasoline

5.00

4.97

99%

70%-130%

QUALIFIERS

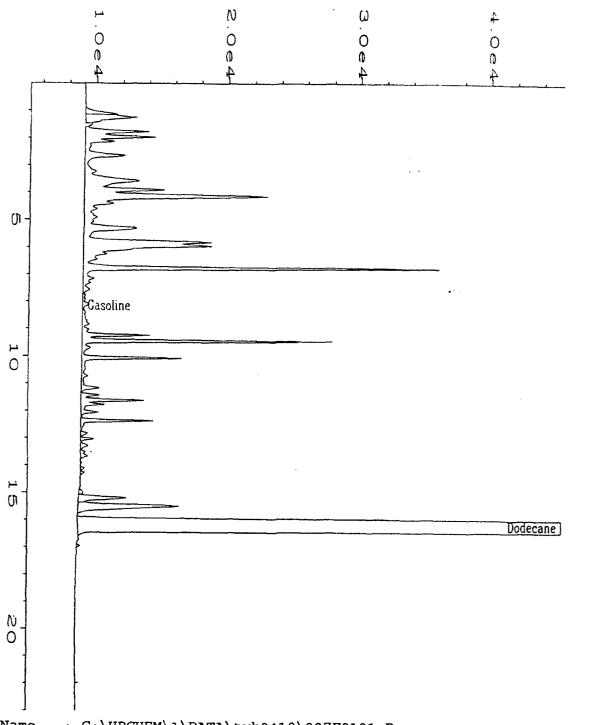
U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst



: C:\HPCHEM\1\DATA\tvh0410\007F0101.D ata File Name perator : Dawn N. Guildner Page Number nstrument : TVH Vial Number ample Name : LCS041095 Injection Number: 1 un Time Bar Code: Sequence Line : 1 equired on : 10 Apr 95 01:17 PM Instrument Method: TVH1BASE. eport Created on: 10 Apr 95 03:04 PM ast Recalib on : 10 APR 95 01:08 PM Analysis Method : TVH0410.MTH Sample Amount : 0 ultiplier : 1 ISTD Amount

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Anions

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Date Sampled	:	3/24,26/95	Client Project ID.	:	MacDill AFB
Date Received	:	3/28/95	Lab Project No.	:	95-0983
Date Prepared	:	3/28/95	Method		EPA 300.0
Date Analyzed	:	3/28/95	Detection Limit	:	$0.250~{ m mg/L}$
-			Matrix	:	Water

Evergreen Sample #	Client <u>Sample ID</u>	Chloride (mg/L)
X04848	24PZ-1S	27.4
X04849	24PZ-1D	177
X04850	24MP-6S	42.6
X04851	MD32-3	32.8
X04852	MW56-10	11.5
X04853	56MP-6D	41.7
X04854	56MP-6S	27.5
X04855	MW56-1	28.3
X04856	MW56-21	27.8
X04857	56MP-8S	28.2
X04857dup	56MP-8Sdup	28.5
Method Blank	3-28-95	<0.250

Quality Assurance

			Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04857	56MP-8S Matrix		10.0	28.2	39.1	110
X04857	56MP-8S Matrix	Spike Dup	10.0	28.2	38.3	102
	MS/MSD	RPD			·	7.56
X04857/X04857	Dup	RPD				9.76

Analyst

Approved

Anions

						722450.21020/
Date	Sampled	:	3/26,27/95	Client Project ID.	:	MacDill AFB
Date	Received	:	3/28/95	Lab Project No.	:	95-0983
Date	Prepared	:	3/28/95	Method	:	EPA 300.0
Date	Analyzed	.:	3/28/95	Detection Limit	:	0.250 mg/L
	_			Matrix	:	Water
				Matrix	:	Water

Evergreen Sample #	Client <u>Sample ID</u>	. Chloride (mq/L)
X04858 X04859 X04860	56MP-10S MW56-2 MW56-8	7.90 24.7 10.8
X04861 X04862 X04863	MW56-9 56MP-4S MW56-12	17.6 15.3 147
X04864 X04865 X04866	MW56-6 56MP-5S 56MP-5D 56MP-15D	21.5 10.7 16.9 16.4
X04867 X04868 X04869 X04869Dup	MW56-10 56MP-7D 56MP-7D dup	23.4 24.1 24.0
Method Blank	-	<0.250

Quality Assurance

			Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04869	56MP-7I Matrix		10.0	24.1	33.6	94.8
X04869	56MP-71 Matrix) Spike Dup	10.0	24.1	34.6	105
	MS/MSD	RPD				10.3
X04869/X04869	Dup	RPD				0.457

Analyst

Approved

Anions

					722450.21020/
Date Sampled	. :	3/24,26/95	Client Project ID.	:	MacDill AFB
Date Receive	d :	3/28/95	Lab Project No.	:	95-0983
Date Prepare	d :	3/28/95	Method	:	EPA 300.0
Date Analyze	d :	3/28/95	Detection Limit	:	0.076 mg/L
_			Matrix		Water

Evergreen Sample #	Client Sample ID	Nitrite-N (mg/L)
X04848+	24PZ-1S	<0.076
X04849+	24PZ-1D	<0.760*
X04850+	24MP-6S	<0.076
X04851+	MD32-3	< 0.076
X04852	MW56-10	<0.076
X04853	56MP-6D	<0.076
X04854	56MP-6S	<0.076
X04855	MW56-1	<0.076
X04856	MW56-21	<0.076
X04857	56MP-8S	<0.076
X04857dup	56MP-8Sdup	<0.076
Method Blank	3-28-95	<0.076

Quality Assurance**

			Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04857	56MP-88 Matrix		10.0	<0.250	9.40	94.0
X04857	56MP-85 Matrix	Spike Dup	10.0	<0.250	9.13	91.3
	MS/MSD	RPD			·	2.91
X04857/X04857	Dup	RPD				NC

= Increased detection limit due to matrix interference.

** = Quality assurance results reported as Nitrite (NO₂)

NC = Not calculated because sample and/or duplication results below detection limit.

= Samples received outside of holding times for this analyte.

Anions

					722450.21020/
Date Sampled	:	3/26,27/95	Client Project ID.	:	MacDill AFB
Date Received			Lab Project No.	:	95-0983
Date Prepared	:	3/28/95	Method	:	EPA 300.0
Date Analyzed	:	3/28/95	Detection Limit	:	0.076 mg/L
			Matrix	:	Water

Evergreen Sample #	Client <u>Sample ID</u>	Nitrite-N (mg/L)
Damp 2 G II		
X04858	56MP-10S	<0.076
X04859	MW56-2	<0.076
X04860	MW56-8	<0.076
X04861	MW56-9	<0.076
X04862	56MP-4S	<0.076
X04863	MW56-12	<0.760*
X04864	MW56-6	<0.076
X04865	56MP-5S	<0.076
X04866	56MP-5D	<0.076
X04867	56MP-15D	<0.076
X04868	MW56-10	<0.076
X04869	56MP-7D	<0.076
X04869Dup	56MP-7D dup	<0.076
Method Blank	3-28-95	<0.076

Quality Assurance**

			Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04869	56MP-7D Matrix S	Spike	10.0	<0.250	9.07	90.7
X04869	56MP-7D Matrix S	Spike Dup	10.0	<0.250	8.88	88.8
	MS/MSD I	RPD				2.01
X04869/X04869	Dup I	RPD				NC

* = Increased detection limit due to matrix interference.

** = Quality assurance results reported as Nitrite (NO₂)
NC = Not calculated because sample and/or duplication results below detection limit.

Analyst

Approved

Anions

722450.21020/

Date Sampled : 3/24,26/95 Client Project ID. : MacDill AFB
Date Received : 3/28/95 Lab Project No. : 95-0983
Date Prepared : 3/28/95 Method : EPA 300.0

Date Analyzed: 3/28/95 Detection Limit: 0.056 mg/L

Matrix : Water

Evergreen <u>Sample #</u>	Client Sample ID	Nitrate-N (mg/L)
X04848+	24PZ-1S	<0.056
X04849+	24PZ-1D	<0.056
X04850+	24MP-6S	<0.056/
X04851+	MD32-3	<0.056
X04852	MW56-10	0.202
X04853	56MP-6D	<0.056
X04854	56MP-6S	<0.056
X04855	MW56-1	0.992
X04856	MW56-21	0.992
X04857	56MP-8S	<0.056
X04857dup	56MP-8Sdup	<0.056
Method Blank	: 3-28-95	<0.056

Quality Assurance**

			Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04857	56MP-88 Matrix		10.0	<0.250	9.21	92.1
X04857	56MP-88 Matrix	S Spike Dup	10.0	<0.250	8.92	89.2
	MS/MSD	RPD			•	3.20
X04857/X04857	Dup	RPD				NC

** = Quality assurance results reported as Nitrate (NO₃)

NC = Not calculated because sample and/or duplication results below detection limit.

+ = Samples received outside of holding times for this analyte.

Approved

Anions

						722450.21020/
Date	Sampled	:	3/26,27/95	Client Project ID.	:	MacDill AFB
Date	Received	:	3/28/95	Lab Project No.	:	95-0983
Date	Prepared	:	3/28/95	Method	:	EPA 300.0
Date	Analyzed	:	3/28/95	Detection Limit	:	0.056 mg/L
	_			Matrix	:	Water

Evergreen Sample #	Client Sample ID	Nitrate-N (mg/L)
X04858	56MP-10S	<0.056
X04859	MW56-2	<0.056
X04860	MW56-8	<0.05 <i>6</i>
X04861	MW56-9	0.608
X04862	56MP-4S	<0.056
X04863	MW56-12	0.394
X04864	MW56-6	<0.056
X04865	56MP-5S	0.080
X04866	56MP-5D	<0.056
X04867	56MP-15D	<0.056
X04868	MW56-10	<0.056
X04869	56MP-7D	<0.056
X04869Dup	56MP-7D dup	<0.056
Method Blan	k 3-28-95	<0.056

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04869	56MP-7D Matrix Spike	10.0	<0.250	8.75	87.5
X04869	56MP-7D Matrix Spike Dup	10.0	<0.250	8.73	87.3
	MS/MSD RPD			•	0.229
X04869/X04869	Dup RPD				NC

** = Quality assurance results reported as Nitrate (NO_3) NC = Not calculated because sample and/or duplication results below detection limit.

Approved

<u>Anions</u>

Date Prepared: 3/28/95

Date Prapared: 3/28/95

Date Analyzed: 3/28/95

Method: EPA 300.0

Detection Limit: 0.250 mg/L

Matrix: Water

Evergreen Client
Sample # Sulfate (mg/L)

X04848	24PZ-1S	1.04,
X04849	24PZ-1D	3.56
X04850	24MP-6S	8.12/
X04851	MD32-3	99.2
X04852	MW56-10	17.8
X04853	56MP-6D	183
X04854	56MP-6S	67.3
X04855	MW56-1	80.0
X04856	MW56-21	79.4
X04857	56MP-8S	108
X04857dup	56MP-8Sdup	107

Method Blank 3-28-95 <0.250

Ouality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04857	56MP-8S Matrix Spike	10.0	108	20.4*	96.2
X04857	56MP-8S Matrix Spike Dup	10.0	108	20.0*	92.2
	MS/MSD RPD				4.25
X04857/X04857	Dup RPD				0.344

* Spike result based on a 10x dilution factor.

Approved

Anions

722450.21020/

Date Sampled : 3/26,27/95 Client Project ID. : MacDill AFB
Date Received : 3/28/95 Lab Project No. : 95-0983
Date Prepared : 3/28/95 Method : EPA 300.0

Date Prepared: 3/28/95 Method: EPA 300.0
Date Analyzed: 3/28/95 Detection Limit: 0.250 mg/L

Matrix : Water

Evergreen Sample #	Client <u>Sample ID</u>	Sulfate (mg/L)
X04858 X04859 X04860 X04861 X04862 X04863 X04864 X04865 X04866	56MP-10S MW56-2 MW56-8 MW56-9 56MP-4S MW56-12 MW56-6 56MP-5S 56MP-15D	4.61 46.3 29.7 58.7 0.395 42.4 2.92 1.21 50.4 52.9
X04868 X04869 X04869Dup	MW56-10 56MP-7D 56MP-7D dup	68.6 65.1 65.4
Method Blan	k 3-28 - 95	<0.250

Ouality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result <u>(mg/L)</u>	% Recovery	
X04869	56MP-7D Matrix Spike	10.0	65.1	75.4	102	ı
X04869	56MP-7D Matrix Spike Dup	10.0	65.1	75.5	104	,
	MS/MSD RPD				1.36	
X04869/X04869	Dup RPD				0.368	

Analyst

Approved

Miscellaneous Analyses

722450.21020

Date Sampled : 3/24,26,27/95 Client Project ID. : /MacDill AFB
Date Received : 3/28/95 Lab Project No. : 95-0983
Date Prepared : 3/30/95 Detection Limit : 5.00 mgCaCO₃/L
Date Analyzed : 3/30/95 Method : EPA 310.1

Evergreen Sample #	Client Sample ID	<u>Matrix</u>	Total Alkalinity (mgCaCO ₃ /L)
X04851	MD32-3	Water	149
X04851 Dup	MD32-3 Dup	Water	150
X04853	56MP-6D	Water	154
X04854	56MP-6S	Water	131
X04866	56MP-5D	Water	123
X04867	56-MP-15D	Water	121
X04868	MW56-10	Water	152
Method blank	(3/30/95)		<5.00

Ouality Assurance

	True Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% <u>Recovery</u>
APG Minerals Reference Lot 13862	11.8	10.5	89.0
X04851/X04851 Dup RPD			0.575

Approved

Total Organic Carbon

						722450.21020
Date	Sampled	:	3/24/95	Client Project ID.	:	MacDill AFB
Date	Received	:	3/28/95	Lab Project No.	:	95-0983
Date	Prepared	:	3/31/95	Method	:	EPA 415.1
Date	Analyzed		3/31/95	Matrix		Water

Detection Limit : 1.00 mg C/L

Evergreen Sample #	Client <u>Sample ID</u>	mg C/Liter
X04850	24MP-6S	30.1
X04851	MD32-3	8.55
95-1009		
X04936	56MP-3S	10.2
X04936 Dup	56MP-3S Dup	10.2
Method Blan	ık (3/31/95)	<1.00

Ouality Assurance

		Spike Amount (mg C/L)	Sample Result (mg C/L)	Spike Result (mg C/L)	% Recovery
<u>95-1009</u> X04936	Matrix Spik	e 10.0	10.2	20.6	103
X04936	Matrix Spike 56MP-3S	e Dup 10.0	10.2	20.7	104
	MS/MSD RPD				1.15
X04936/X04	936 RPD				0.098

Analyst

Approved

External Standard Report

→ Refile Name : C:\HPCHEM\1\DATA\BX10413\012F0101.D

o erator : C.J. Cook Page Number Instrument : BTEX1 Vial Number : 12 Sample Name : X04862;250;0.02 Injection Number: 1 Run Time Bar Code: Sequence Line : 1

Acquired on : 13 Apr 95 06:57 PM Instrument Method: BX10413A.MTH Report Created on: 13 Apr 95 07:24 PM Analysis Method : BX10413A.MTH

Last Recalib on : 13 APR 95 04:13 PM Sample Amount : 0 : 250 Multiplier ISTD Amount Water

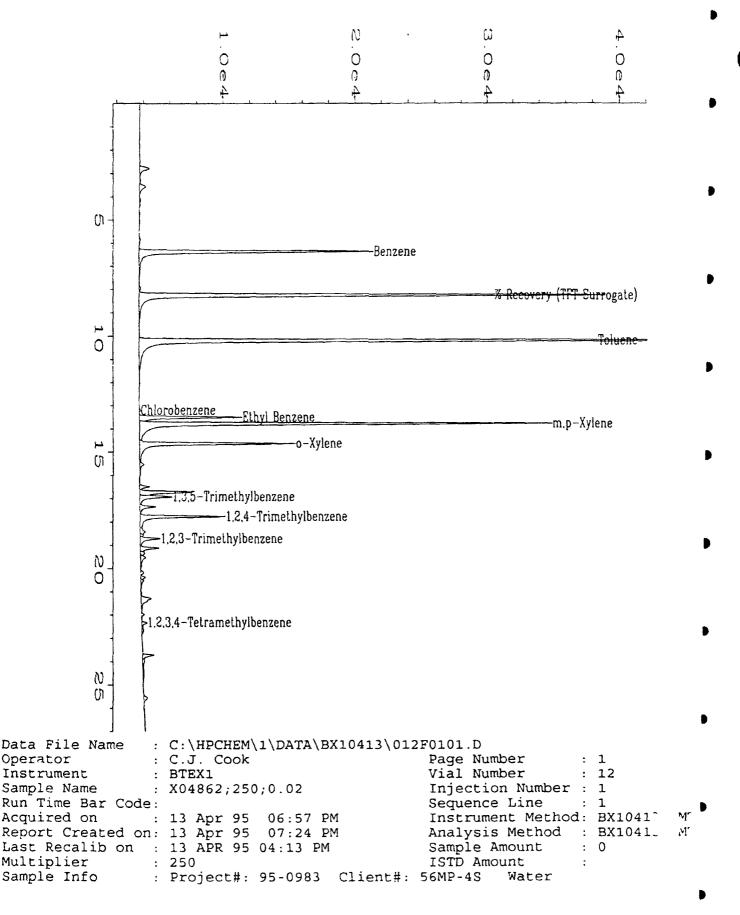
Sample Info : Project#: 95-0983 Client#: 56MP-4S

Sig. 1 in C:\HPCHEM\1\DATA\BX10413\012F0101.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.362	120692	PΛ	0.104	1		Benzene = 3929
8.244	238005	$\nabla \Delta$	0.104	1-R	19894.49	% Recovery (TFT Surrogate) = 80/
10.177	327698	VV	0.096	1	11936.23	Toluene = //936
13.184	614	PV	0.104	1	47.505	Chlorobenzene
13.485	44051	VV	0.087	1	1778.348	Ethyl Benzene = 1778
13.763	196208	VV	0.095	1	6512.699	m, p-Xylene = 6513
14.628	75627	VV	0.096	1	3061.683	o-Xylene > 3062
16.909	17557	VV	0.105	1	508.633	1,3,5-Trimethylbenzene
@ 17.751	41320	VV	0.096	1	1743.240	1,2,4-Trimethylbenzene = 1743
18.699	10682	VV	0.105	1	376.462	1,2,3-Trimethylbenzene
22.317	3080	VV	0.111	1	14.252	1,2,3,4-Tetramethylbenzene

Time Reference Peak Expected RT Actual RT Difference 2 8.262 8.244 -0.018

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External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10413\013F0101.D

:rator : C.J. Cook Page Number : 1
Instrument : BTEX1 Vial Number : 13
Sample Name : X04864;250;0.02 Injection Number : 1
Run Time Bar Code: Sequence Line : 1

Acquired on : 13 Apr 95 07:36 PM Instrument Method: BX10413A.MTH Report Created on: 13 Apr 95 08:04 PM Analysis Method : BX10413A.MTH

Last Recalib on : 13 APR 95 04:13 PM Sample Amount : 0 Multiplier : 250 ISTD Amount :

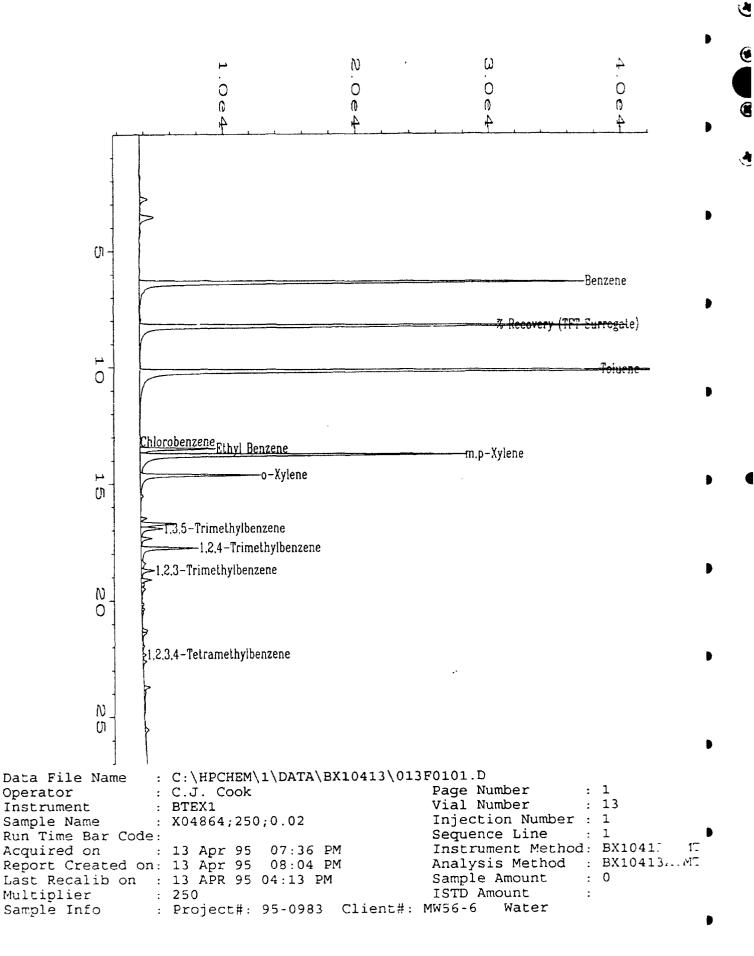
Sample Info : Project#: 95-0983 Client#: MW56-6 Water

Sig. 1 in C:\HPCHEM\1\DATA\BX10413\013F0101.D

Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.357	229474	PV	0.105	1	7478.965	Benzene = 7479
8.242	250991	VV	0.105	1-R	20979.94	% Recovery (TFT Surrogate) = 89%
10.178	349156	VV	0.097	1	12722.18	Toluene = 12722
13.188	114	PV	0.101	1	28.655	Chlorobenzene
13.487	33203	VV	0.089	1	1332.292	Ethyl Benzene = 1372
13.765	154670	VV	0.095	1	5092.296	m,p-Xylene = 5052
14.630	60075	VV	0.098	1	2418.316	o-Xylene = 2418
16.913	12749	VV	0.110	1	344.942	1,3,5-Trimethylbenzene
17.753	29116	VV	0.099	1	1205.224	1,2,4-Trimethylbenzene =/205
18.700	7388	VV	0.107	1	208.066	1,2,3-Trimethylbenzene
22.311	1739	VV	0.108	1	-65.020	1,2,3,4-Tetramethylbenzene

Time Reference Peak Expected RT Actual RT Difference 2 8.262 8.242 -0.020

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CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project #: 95-0954

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 24, 1995, 13 water samples, 7 soil samples and one trip blank were received at EAL in good condition with the following discrepancies: Sample bottles were not included for TOC analysis for MD42-1 and 24MP-5D. The instructions at the bottom of page 1 of the chain of custody request field blank analyses, however, a field blank was not included in the cooler.

Three sets of matrix spike and matrix spike duplicate samples were included for previous sample shipments. These aliquots had already been taken from extra sample volume, therefore, 24MP-6S, 74SS-4 and 56SS-2 MS/MSD samples were not analyzed. Todd Wiedemeier was notified by FAX on March 24, 1995.

The trip blank was analyzed for BTEX only per instructions from Leigh Benson on March 22, 1995.

Refer to the EAL Sample Log Sheet for specific Log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Water and Soil Matrix, Methods SW8020 and 602 Sample 24MP-1S was analyzed at dilution factors of one and 100 due to the presence of analytes of interest in the sample. Both data sets are reported.

The Method Blank MB040495 was contaminated with chlorobenzene at 0.7 UG/L. Any affected data are flagged "B". There were no other quality control anomalies to report.

Total Volatile Hydrocarbon (TVH), Water and Soil Matrix, Method 8015M

There were no quality control anomalies to report.

Page Two
Case Narrative
Parsons Engineering Science
95-0954

Total Extractable Hydrocarbons (TEH) Soil Matrix, Method 8015M, Jet-A

There were no quality control anomalies to report. Please note however, that the sample chromatogram 24SS-2, indicates the presence of significant levels of hydrocarbons with a boiling range greater than Jet Fuel. Laboratory duplicate analysis confirms results which do not match jet fuel pattern.

General Chemistry
There were no quality control anomalies to report.

Patricia A. McClellan, Project Manager

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Page 1 of 3 Page(s)

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Lab Client			
ID # ID#	Analysis	Mtx	Btl Loc
X04751C/D 24MP-2D	TVPH 8015	<u> </u>	40V #2
X04752C/D 24MP-2S	TVPH 8015	W	40V #2
X04753C/D 24MP-1D	TVPH 8015	W	40V #2
X04754C/D 24MP-1S	TVPH 8015	W	40V #2
X04755C/D MD24-2	TVPH 8015	W	40V #2
X04756C/D MD24-5	TVPH 8015	<u> </u>	40V #2
X04757C/D 24MP-4S	TVPH 8015	W	40V #2
X04758C/D MD24-4	TVPH 8015	W	40V #2
X04759C/D MD24-41	TVPH 8015	W	40V #2
X04760C/D MD24-3	TVPH 8015	W	40V #2
X04761C/D MD24-1	TVPH 8015	W	40V #2
X04762C/D 24MP-5D	TVPH 8015	W	40V #2
X04770C/D 24SS-2	TVPH 8015	S	4WM #2
X04750F MD24-8	Cl ⁻ , SO ₄ , NO ₂ , NO ₃	W	25P CR1
X04751E 24MP-2D	$C1^-$, SO_4 , NO_2 , NO_3	W	125P CR1
X04752E 24MP-2S	Cl^- , SO_4 , NO_2 , NO_3	W	25P CR1
X04753E 24MP-1D	Cl ⁻ , SO ₄ , NO ₂ , NO ₃	W :	25P CR1
X04754E 24MP-1S	Cl ⁻ , SO ₄ , NO ₂ , NO ₃	W	25P CR1
X04755E MD24-2	Cl ⁻ ,SO ₄ ,NO ₂ ,NO ₃	W	25P CR1
X04756E MD24-5	Cl ⁻ , SO ₄ , NO ₂ , NO ₃		25P CR1
X04757E24MP-4S	$C1^-$, SO_4 , NO_2 , NO_3	W 1	25P CR1
X04758E MD24-4	Cl ⁻ , SO ₄ , NO ₂ , NO ₃		25P CR1
X04759E MD24-41	Cl ⁻ , SO ₄ , NO ₂ , NO ₃	W 1	25P CR1
X04760E MD24-3	Cl ⁻ , SO ₄ , NO ₂ , NO ₃		25P CR1
X04761E MD24-1	Cl ⁻ , SO ₄ , NO ₂ , NO ₃		25P CR1
X04762E 24MP-5D	Cl ⁻ , SO ₄ , NO ₂ , NO ₃		25P CR1 ·
X04756F MD24-5	TOC	W	125A CR1
X04760F MD24-3	TOC	w	125A CR1
X04761F MD24-1	TOC	W	125A CR1
X04762F 24MP-5D	TOC	W	125A CR1
X04750E MD24-8	ALKALINITY	W	250P CR1
X04764A/B MAT.SP.24MP-6S	HOLD		
X04765A/B MAT.SP.DUP.24MP-6			
		S	4WM #2
X04766A/B MAT.SP.75SS-4	HOLD	S	4WM #2
X04767A/B MAT.SP.DUP.75SS-4		S	4WM #2
X04768A/B MAT.SP.56SS-2	HOLD	S	4WM #2
X04769A/B MAT.SP.DUP.56SS-2	HOLD	<u> </u>	4WM #2

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Lab ID #	Client ID#	Analysis	Mtx Btl Loc
X04764C/D	MAT.SP.24MP-6S	HOLD	S 4WM #2
.04765C/D	MAT.SP.DUP.24MP-6S	HOLD	S 4WM #2
X04766C/D	MAT.SP.75SS-4	HOLD	S 4WM #2
X04767C/D	MAT.SP.DUP.75SS-4	HOLD	S 4WM #2
X04768C/D	MAT.SP.56SS-2	HOLD	S 4WM #2
X04769C/D	MAT.SP.DUP.56SS-2	HOLD	S 4WM #2
X04764E	MAT.SP.24MP-6S	HOLD	S 4WM CR1
X04765E	MAT.SP.DUP.24MP-6S	. HOLD	S 4WM CR1
X04766E	MAT.SP.75SS-4	HOLD	S 4WM CR1
X04767E	MAT.SP.DUP.75SS-4	HOLD	S 4WM CR1
X04768E	MAT.SP.56SS-2	HOLD	S 4WM CR1
X04769E	MAT.SP.DUP.56SS-2	HOLD	S 4WM CR1
X04764F	MAT.SP.24MP-6S	HOLD	S 2WM CR1
X04765F	MAT.SP.DUP.24MP-6S	HOLD	S 2WM CR1
X04766F	MAT.SP.75SS-4	HOLD	S 2WM CR1
X04767F	MAT.SP.DUP.75SS-4	HOLD	S 2WM CR1
X04768F	MAT.SP.56SS-2	HOLD	S 2WM CR1
X04769F	MAT.SP.DUP.56SS-2	HOLD	S 2WM CR1
€04764G	MAT.SP.24MP-6S	HOLD	S 125A CR1
X04765G	MAT.SP.DUP.24MP-6S	HOLD	S 125A CR1
X04766G	MAT.SP.75SS-4	HOLD	S 125A CR1
X04767G	MAT.SP.DUP.75SS-4	HOLD	S 125A CR1
X04768G	MAT.SP.56SS-2	HOLD	S 125A CR1
X04769G	MAT.SP.DUP.56SS-2	HOLD	S 125A CR1

Page 2 of 3 Pages
Project # 95-0954

R=Sample to be returned

CHAIN OF CUSTOUY RECORD / ANALYTICAL SERVICES REQUEST

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CHAIN OF CUSTOUY RECORD ' NALYTICAL SERVICES REQUEST

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CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Page 3 of 3

Sampler Name: (signature)	20/804/Pest/Herb/Metals 30/624/524.2 (circle) 30/624/524.2 (circle) 30/625 (circle) 30/602/608/508 (circle) 30/602/515 (circle) 30/602 (circle) 30/602 (circle)	YSIS REQUEST	t to additional fe
en Analytical Cooler No	0/624,524,2 (circle) 10/625 (circle) 10/625 (circle) 10/625 (circle) 10/625 (circle) 10/625 (circle)	REQUESTER OF THE PROPERTY OF T	EAL use only
ical Cooler No	90/624,524.2 (circle) 92 8080/608 (circle) 93 8080/608 (circle) 94 8150/515 (circle)	9 9886 Lu Lu (a)	Do not write
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CI	ient Project ID(s): Mac Dill	Af	-B			 -	1,5 4	
EA	L Project #(s):95-0954		_	EAL	Cooler(s	5):	Y	N
	oler# <u>606</u>					-		
Ic	e packs Y N Y N	Y	N		Y N	Y	N	
Tec	operature ocold		 					~
					Y		N	N/A •
1.	Custody seal(s) present: Seals on cooler intact Seals on bottle intact							
2.	Chain of Custody present:							•
3.	Containers broken or leaking: (Comment on COC if Y)						_	
4.	Containers labeled:							•
5.	COC agrees w/ bottles received: (Comment on COC if N)				$\frac{\checkmark}{}$			•
6.	COC agrees w/ labels: (Comment on COC if N)							/ 1
7.	Headspace in VOA vials-waters or (comment on COC if Y)	nly						
8.	VOA samples preserved:							
9.	pH measured on metals, cyanide of List discrepancies*Non-EAL provided containers on					ly.		
10.	Metal samples present:				***************************************			
	Total, Dissolved							•
	D or PD to be filtered: T,TR,D,PD to be Preserved:							
11.	Short holding times: Specify parameters							_ •
12.	Multi-phase sample(s) present:	·		·				_
13.	COC signed w/ date/time:				<u> </u>	 	-	_
Com	ments:							
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	itional comments on back) codian Signature/Date:	(")	M	rgr	334	95		

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CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

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## information: ### Information: ### DATE ### DATE CATION SAMPLED TIME As Soli / Solid ### S123/95 13:25 5 x ### S124/95 13:25 5 x	Sampler Name: (signature) (print) Mask Jossely Evergreen Analytical Cooler No.	E CO ZIP	Ste 9;	FAX # MAT	MATRIX	Sie	«	> 200 0	Wheat R 303) 42 AX (30) 800) 84 FAX RE	Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6021 (800) 845-7400 FAX RESULTS Y / N ANALYSIS RE	Slorado (Sea Caracteria)	80033 N REQ	PRO EAL. PRO TURN *expe	CLIENT CONT. PROJECT I.D. EAL. QUOTE # TURNAROUND *expedited turn. FED	CONTACT I.D JOTE # JOTE	CLIENT CONTACT (print) PROJECT I.D. Mac D. W. EAL. GUOTE # TURNAROUND REQUIRED: *expedited turnaround subject i		CLIENT CONTACT (print) SEW () TO PROJECT I.D. (Max. D), VI. AFEB EAL. GUOTE # PO.# TURNAROUND REQUIRED* 3 C. d. *expedited turnaround subject to additional fee FED ***	722450 475 AZ use only o not write	2012:
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CHAIN OF CUSTODY RECORD NALYTICAL SERVICES REQUEST

Page 2 of 3

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Page 3 of 3	# 72245 21	TURNAROUND REQUIRED*** *expedited turnaround subject to additional fee	EAL use only Do not write	in shaded area	EAL Project #	Custodian	EAL Sample No.											Location	Container Size
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Method 602 Data Report Method Blank Report

Method Blank Number

: MB040395

Client Project No.

: 722450.21020

Date Prepared

: 4/3/95

Lab Project No.

: 95-0954

Date Analyzed : 4/3/95 Dilution Factor

: 1.00 : 602/8020

Method Matrix

: Water

Lab File No.

: BX2040318

Compound Name	Cas Number	Sample Concentration	RL
Benzene	71-43-2	ug/L U	ug/L 0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes	108-38-3, 106-42-3	U	0.4
(m, p & o) ¶,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (α,α,α-Triffuc	rotoluene):	99%	70%-130% (ΩC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

iA = Not Available/Not Applicable.

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          : BTEX2
```

Data File Name Operator Instrument Injection Number: 1 : MB040395 Sample Name : 7 Sequence Line Run Time Bar Code: Instrument Method: BX2040° : 03 Apr 95 02:56 PM Acquired on Report Created on: 10 Apr 95 04:41 PM Last Recalib on : 10 Apr 95 04:19 PM Analysis Method : BX2040. Sample Amount ISTD Amount Multiplier

pr 4/27/95

Method 602 Data Report Method Blank Report

Method Blank Number

: MB040495

Client Project No.

: 722450.21020

Date Prepared

: 4/4/95

Lab Project No.

97%

: 95-0954

Date Analyzed

: 4/4/95

Dilution Factor

: 1.00

Method

: 602/8020

Matrix

: Water

Lab File No.

: BX2040409

San	nple
-----	------

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	0.7	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

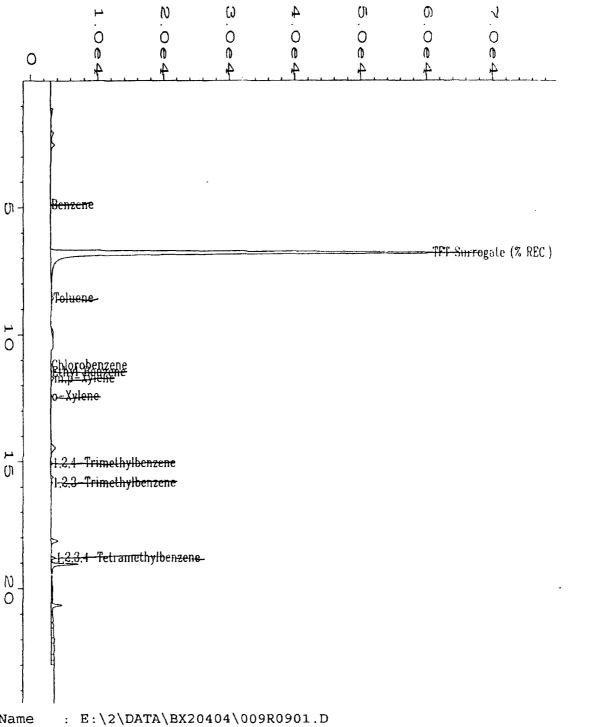
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved



Data File Name : C.J. Cook Operator Page Number : 1 : BTEX2 Vial Number Instrument Sample Name : MB040495 Injection Number: 1 : 9 Run Time Bar Code: Sequence Line Instrument Method: BX20404 "T: Acquired on : 04 Apr 95 06:01 AM Report Created on: 26 Apr 95 05:52 PM Analysis Method : BX2040 Last Recalib on : 14 APR 95 02:10 PM Sample Amount Multiplier ISTD Amount

pm 4/27/95

Method 602 Data Report Method Blank Report

Method Blank Number

: MB040595

Client Project No.

: 722450.21020

Date Prepared

: 4/5/95

Lab Project No.

: 95-0954

Date Analyzed

: 4/5/95

Dilution Factor

: 1.00

Method

: 602/8020

Matrix

Lab File No.

: Water

: BX1040509

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	

Surrogate Recovery (\alpha, \alpha, \alpha - Trifluorotoluene):

93%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

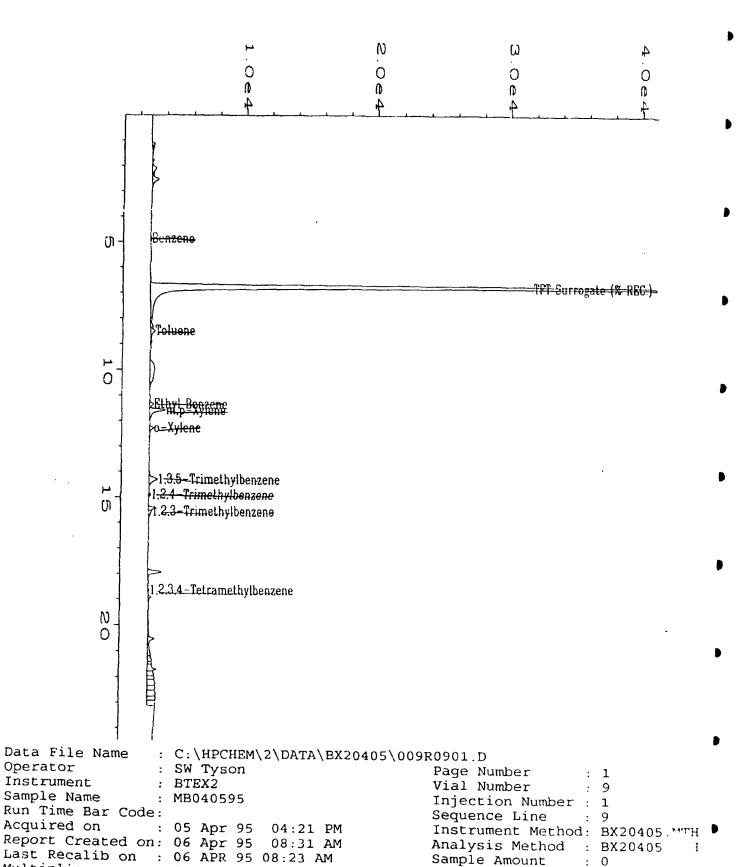
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

JA = Not Available/Not Applicable.

Analyst



ISTD Amount

Multiplier

,pr. 4/27/95

Method 8020 Data Report Method Blank Report

Method Blank Number

: MB040695

Client Project No.

: 722450.21020

Date Extracted/Prepared

: 4/6/95

Lab Project No.

: 95-0954

Date Analyzed

: 4/6/95

Dilution Factor

: 1.00

Method

: 602/8020

Matrix

: Water

Lab File No.

: BX2040609

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	U	1.0	
Toluene	108-88-3	U	1.0	
Chlorobenzene	108-90-7	U	1.0	
Ethyl Benzene	100-41-4	U	1.0	
Total Xylenes	108-38-3, 106-42-3	U	1.0	
(m. p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	1.0	1
1,2,4-Trimethylbenzene	95-63-6	U	1.0	
1,2,3-Trimethylbenzene	526-73-8	U	1.0	
1,2,3,4-Tetramethylbenzene	488-23-3	U	1.0	(

Surrogate Recovery (\alpha, \alpha, \alpha-Trifluorotoluene):

105%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

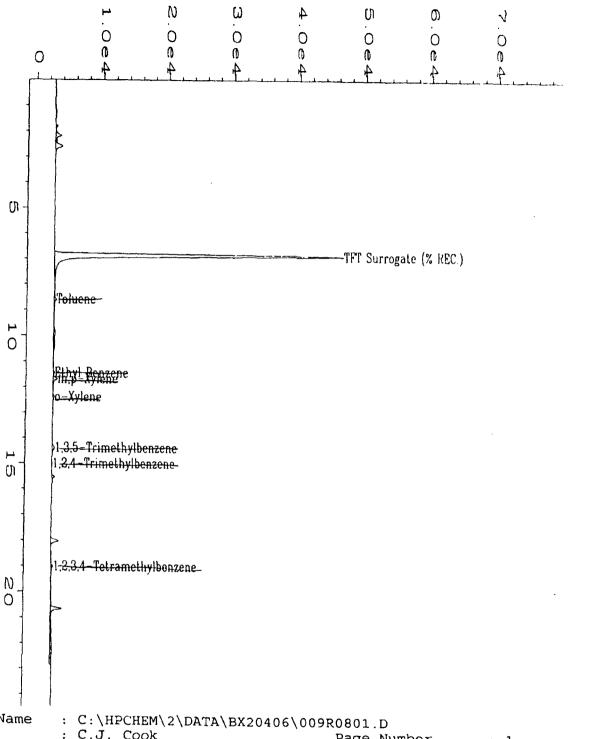
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst



Data File Name Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number Sample Name : MB040695 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Acquired on : 06 Apr 95 02:47 PM Report Created on: 14 Apr 95 02:46 PM Last Recalib on : 07 APR 95 07:38 AM Instrument Method: BX2040 Analysis Method : BX2040 .47 Sample Amount : 0 Multiplier ISTD Amount

prr 4/27/95

Method 602 Data Report

Client Project No. : 722450.21020 Client Sample Number : 24MP-2S ∮ Lab Project No. : 95-0954 : X04752 Lab Sample Number : 1.00 : 3/22/95 Dilution Factor Date Sampled : 602 Method **Date Received** : 3/24/95 : 4/3/95 : Water Date Prepared Matrix Lab File No. : BX2040326 Date Analyzed : 4/3/95 Method Blank No. : MB040395

		Sample	
Compound Name	Cas Number	Concentration	RL
		ug/L	ug/L
Benzene	71-43-2	3.9	0.4
Toluene	108-88-3	14	0.4
Chlorobenzene	108-90-7	1.8	0.4
Ethyl Benzene	100-41-4	14	0.4
Total Xylenes	108-38-3, 106-42-3	2.5	0.4
(m, p & o)	and 95-47-6		
1,3,5-Trimethylbenzene	108-67-8	10	0.4
1,2,4-Trimethylbenzene	95-63-6	29	0.4
1,2,3-Trimethylbenzene	526-73-8	7.8	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (α,α,α-Trifluo	rotoluene):	81%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

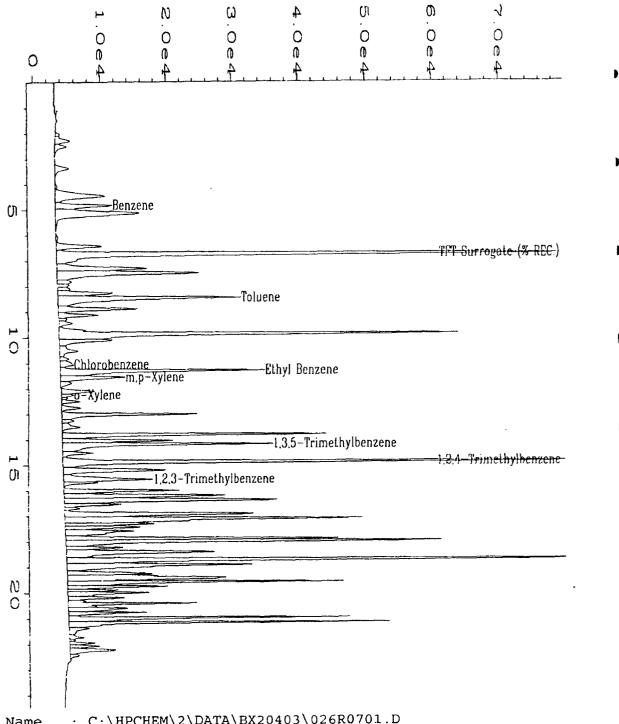
J = Indicates an estimated value when the compound is detected, but is below the "Proporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Annound



: C:\HPCHEM\2\DATA\BX20403\026R0701.D Data File Name Page Number : C.J. Cook Operator Vial Number Instrument : BTEX2 Injection Number: 1 : X04752;1;5 Sample Name : 7 Sequence Line Run Time Bar Code: тE Instrument Method: BX20403 08:58 PM : 03 Apr 95 Acquired on Analysis Method : BX20403 Report Created on: 10 Apr 95 04:45 PM Last Recalib on : 10 APR 95 04:19 PM Sample Amount ISTD Amount Multiplier : 1

Sample Info : PROJECT#: 95-0954 CLIENT#: 24MP-2S WATER

Method 602 Data Report

Client Sample Number	: 24MP-4S	Client Project No.	: 722450.21020
Lab Sample Number	: X04757	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/4/95	Matrix	: Water
Date Analyzed	: 4/4/95	Lab File No.	: BX2040417
		Method Blank No.	: MB040495

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	9.3	0.4	
Chlorobenzene	108-90-7	υ	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) ¶,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	

71%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (\alpha, \alpha, \alpha - Trifluorotoluene):

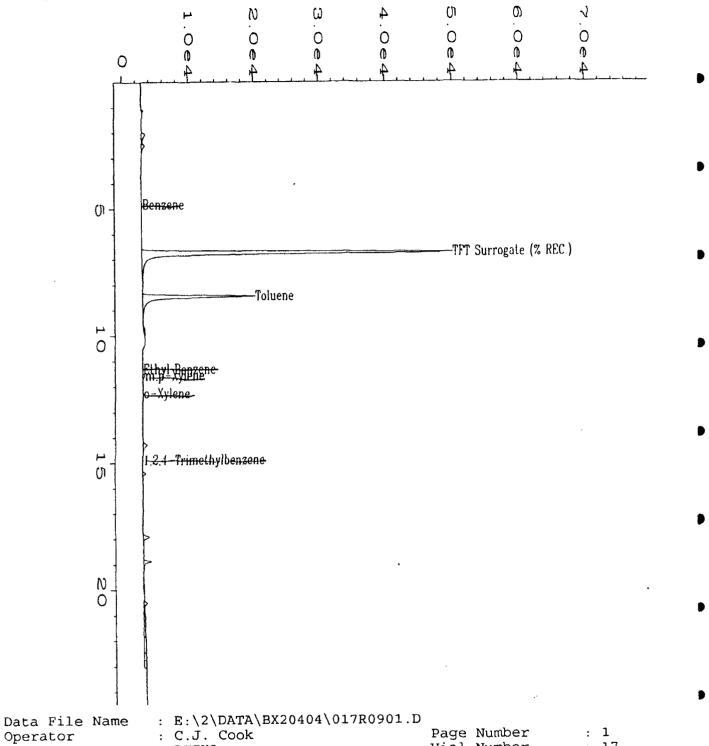
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

VA = Not Available/Not Applicable.

Approved



Operator Vial Number : 17 : BTEX2 Instrument Injection Number: 1 : X04757;1;5 Sample Name Sequence Line : 9 Run Time Bar Code: Instrument Method: BX2040* : 04 Apr 95 12:09 PM Acquired on Analysis Method : BX204(Report Created on: 26 Apr 95 05:57 PM Sample Amount Last Recalib on : 14 APR 95 02:10 PM ISTD Amount Multiplier : 1 pm4/17/95 24MP-45

Method 602 Data Report

: 24MP-5D Client Sample Number Client Project No. : 722450.21020 Lab Sample Number : X04762 Lab Project No. : 95-0954 Date Sampled : 3/23/95 Dilution Factor : 1.00 **Date Received** : 3/24/95 Method : 602 Date Prepared : 4/5/95 Matrix : Water Date Analyzed : 4/5/95 Lab File No. : BX2040518 Method Blank No. : MB040595

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	,
Benzene	71-43-2	V	0.4	
Toluene	108-88-3	υ	0.4	
Chlorobenzene	108-90-7	0.8	0.4	
Ethyl Benzene	100-41-4	υ	0.4	•
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
₱1,3,5-Trimethylbenzene	108-67-8	U	0.4	1
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	0.8	0.4	

Surrogate Recovery (α, α, α -Trifluorotoluene): 93% 70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

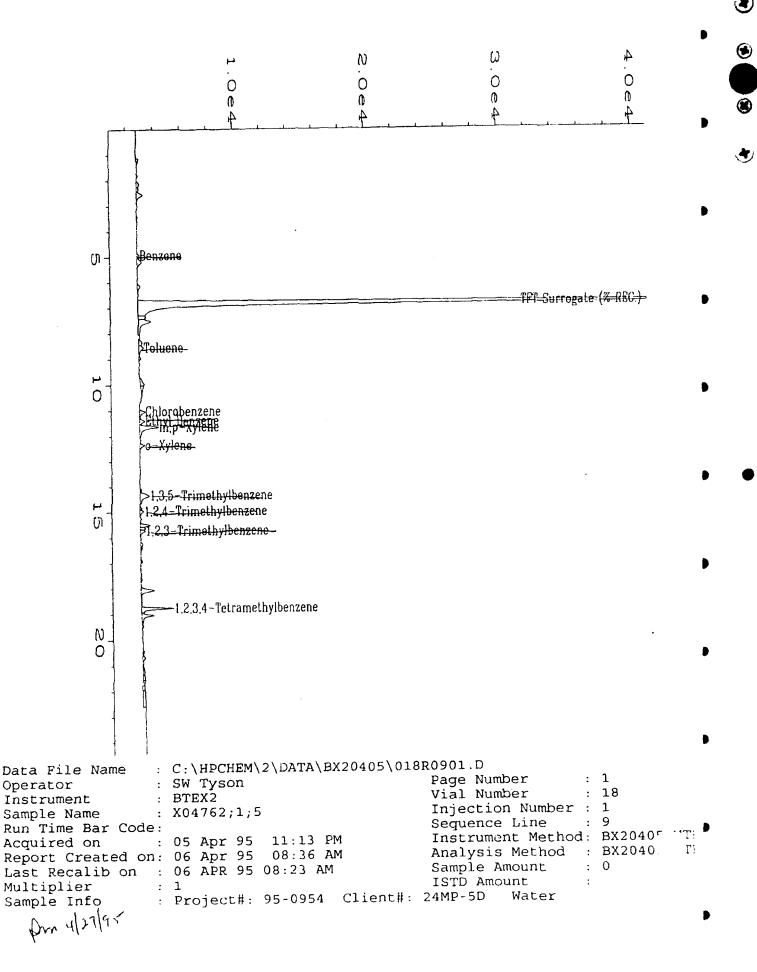
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



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Method 8020 Data Report

Client Sample Number	: 24SS-2	Client Project No.	: 722450.21020
Lab Sample Number	: X04770	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 8020
Date Extracted/Prepared	: 4/6/95	Matrix	: Soil
Date Analyzed	: 4/6/95	Lab File No.	: BX2040611
	•	Method Blank No	· MB040695

		Sam	ple		
Compound Name	Cas Number	Concentra	ation	RL	
		ug/Kg		ug/Kg	
Benzene	71-43-2		U	4.0	
Toluene	108-88-3		U	4.0	
Chlorobenzene	108-90-7		U	4.0	
Ethyl Benzene	100-41-4		U	4.0	
Total Xylenes	108-38-3, 106-42-3	1.0	j	4.0	
(m, p & o)	and 95-47-6				
●1,3,5-Trimethylbenzene	108-67-8	2.0	J	4.0	
1,2,4-Trimethylbenzene	95-63-6		U	4.0	
1,2,3-Trimethylbenzene	526-73-8		U	4.0	
1,2,3,4-Tetramethylbenzene	488-23-3		U	4.0	
Surrogate Recovery (α,α,α-Trifluo	protoluene):	66%		50%-150% (QC	limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

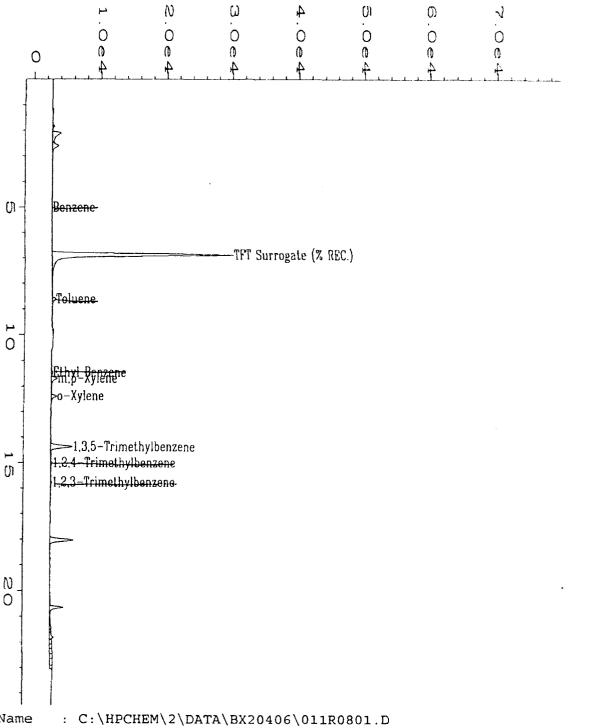
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



```
Data File Name
Operator
                 : C.J. Cook
                                                Page Number
Instrument
                 : BTEX2
                                                Vial Number
                                                                  : 11
Sample Name
                 : X04770;1;5
                                                Injection Number: 1
Run Time Bar Code:
                                                                 : 8
                                                Sequence Line
Acquired on
                : 06 Apr 95 04:18 PM
                                                Instrument Method: BX20406
Report Created on: 07 Apr 95 07:48 AM
                                                Analysis Method : BX20406
Last Recalib on : 07 APR 95 07:38 AM
                                                Sample Amount
                                                                  : 0
Multiplier
                                                ISTD Amount
Sample Info
                 : Project#: 95-0954 Client#: 24SS-2
```

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Method 602 Data Report

Client Sample Number : MD24-1 Client Project No. : 722450.21020 : X04761DUP Lab Project No. : 95-0954 Lab Sample Number : 1.00 Date Sampled : 3/23/95 **Dilution Factor** : 3/24/95 Method : 602 **Date Received** Matrix : Water Date Prepared : 4/5/95 Lab File No. : BX2040515 Date Analyzed : 4/5/95 Method Blank No. : MB040595

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	
Benzene	71-43-2	1.9	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	1.0	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	

95%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (\alpha, \alpha, \alpha-Trifluorotoluene):

B = Compound also found in the blank.

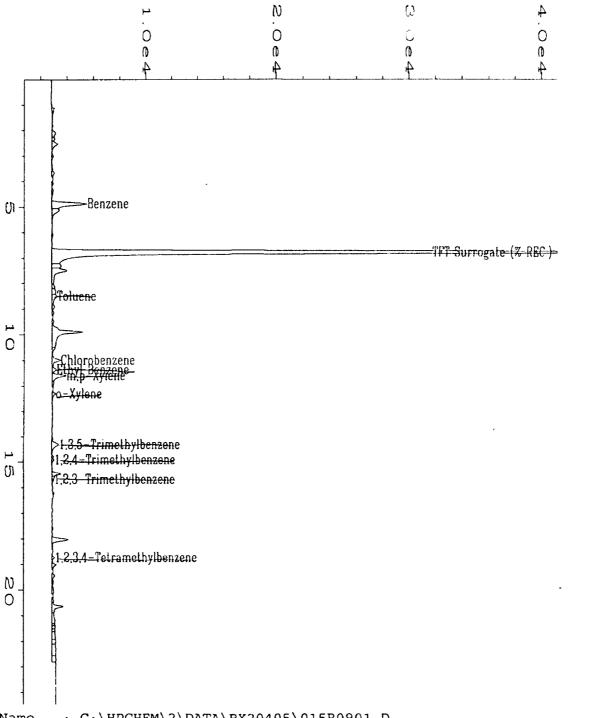
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



```
Data File Name
                  : C:\HPCHEM\2\DATA\BX20405\015R0901.D
Operator
                  : SW Tyson
                                                   Page Number
                                                                      : 1
                                                   Vial Number
Instrument
                  : BTEX2
                                                                      : 15
Sample Name
                  : X04761DUP;1;5
                                                   Injection Number : 1
Run Time Bar Code:
                                                   Sequence Line
                                                                      : 9
                                                   Instrument Method: BX20405 MTI
Acquired on : 05 Apr 95 08:57 PM Report Created on: 06 Apr 95 08:34 AM
                                                   Analysis Method : BX2040.
Last Recalib on : 06 APR 95 08:23 AM
                                                   Sample Amount
                                                                      : 0
Multiplier
                                                   ISTD Amount
Sample Info
                  : Project#: 95-0954 Client#: MD24-1
                                                            Water
```

pm 4/27/95

Method 602 Data Report

Client Sample Number	: MD24-1 [/]	Client Project No.	: 722450.21020
Lab Sample Number	: X04761	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/5/95	Matrix	: Water
Date Analyzed	: 4/5/95	Lab File No.	: BX2040514
	•	Method Blank No	· MB040595

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	
Benzene	71-43-2	1.8	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	1.0	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
●,3,5-Trimethylbenzene	108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	

88%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

Surrogate Recovery (α, α, α -Trifluorotoluene):

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

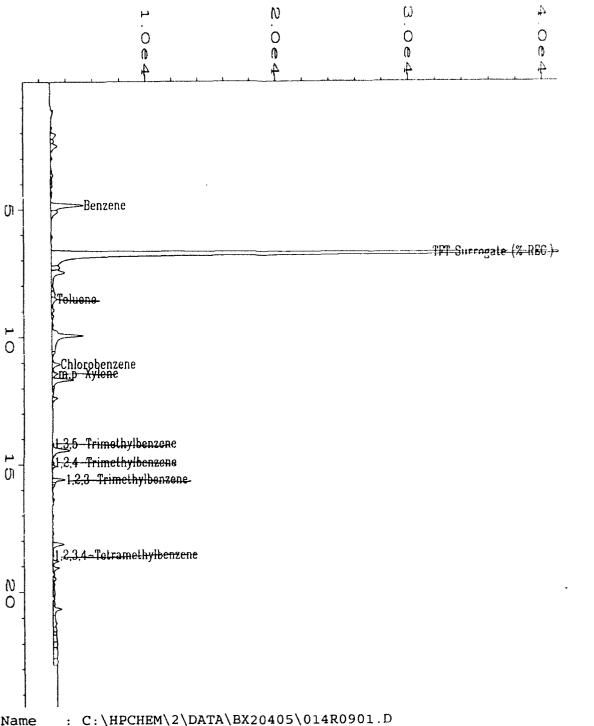
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available Not Applicable.

Analyst

Annroyed



```
: C:\HPCHEM\2\DATA\BX20405\014R0901.D
Data File Name
                                                Page Number
                 : SW Tyson
Operator
                                                Vial Number
                 : BTEX2
Instrument
                                                Injection Number: 1
Sample Name
                 : X04761;1;5
                                                Sequence Line
Run Time Bar Code:
                                                Instrument Method: BX20405 "T
                : 05 Apr 95 08:11 PM
Acquired on
                                                Analysis Method : BX20401
Report Created on: 05 Apr 95 08:34 AM
                                                Sample Amount
Last Recalib on : 06 APR 95 08:23 AM
                                                ISTD Amount
Multiplier
                 : Project#: 95-0954 Client#: MD24-1
                                                        Water
Sample Info
```

Select med

Method 602 Data Report

Client Sample Number	: MD24-2	Client Project No.	: 722450.21020
Lab Sample Number	: X04755	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/3/95	Lab File No.	: BX2040413
	•	Method Blank No.	: MB040495

		Samp	le		
Compound Name	Cas Number	Concentrat	noit	RL	
		ug/L		ug/L	
Benzene	71-43-2	20		0.4	
Toluene	108-88-3	0.9		0.4	
Chlorobenzene	108-90-7	0.8	В	0.4	
Ethyl Benzene	100-41-4	0.6		0.4	
Total Xylenes	108-38-3, 106-42-3	0.6		0.4	
(m, p & o)	and 95-47-6				
,3,5-Trimethylbenzene	108-67-8		U	0.4	
1,2,4-Trimethylbenzene	95-63-6		U	0.4	
1,2,3-Trimethylbenzene	526-73-8		U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	1.7		0.4	

81%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery $(\alpha, \alpha, \alpha$ -Trifluorotoluene):

B = Compound also found in the blank.

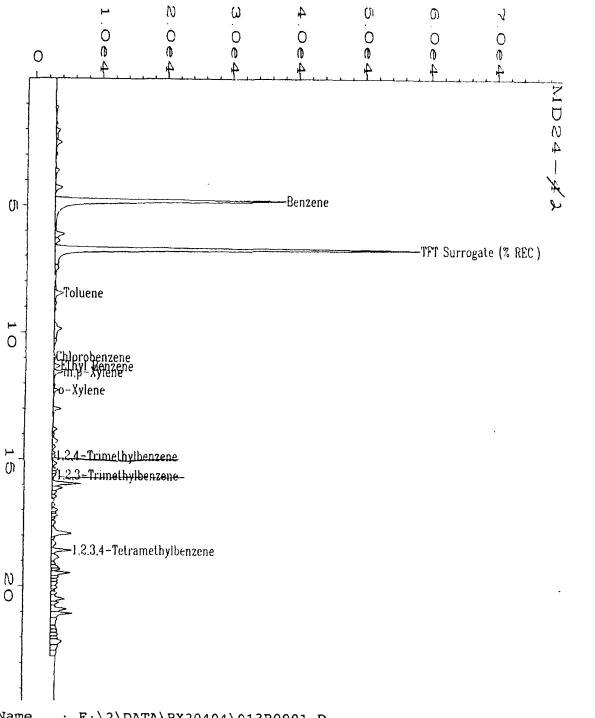
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



```
Data File Name
                 : E:\2\DATA\BX20404\013R0901.D
Operator
                 : C.J. Cook
                                                 Page Number
Instrument
                 : BTEX2
                                                Vial Number
Sample Name
                 : X04755;1;5
                                                Injection Number : 1
Run Time Bar Code:
                                                Sequence Line
                                                                 : 9
Acquired on
                 : 04 Apr 95
                             09:04 AM
                                                 Instrument Method: BX2040¢
Report Created on: 26 Apr 95
                             07:44 PM
                                                Analysis Method : DX2040
                                                                             .T:
Last Recalib on : 14 APR 95 02:10 PM
                                                Sample Amount
                                                                  : 0
Multiplier
                 : 1
                                                ISTD Amount
    Dm 4/27/95
                                                4-4-2-
```

Method 602 Data Report

Client Project No. : 722450.21020 Client Sample Number : MD24-3 √ Lab Project No. : 95-0954 Lab Sample Number : X04760 Dilution Factor : 1.00 : 3/23/95 Date Sampled : 602 Date Received : 3/24/95 Method : 4/5/95 Matrix : Water Date Prepared Lab File No. : BX2040513 Date Analyzed : 4/5/95 Method Blank No. : MB040595

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	0.8	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
₹ 3,5-Trimethylbenzene	108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	

91%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (\alpha, \alpha, \alpha - Triflucrotoluene):

B = Compound also found in the blank.

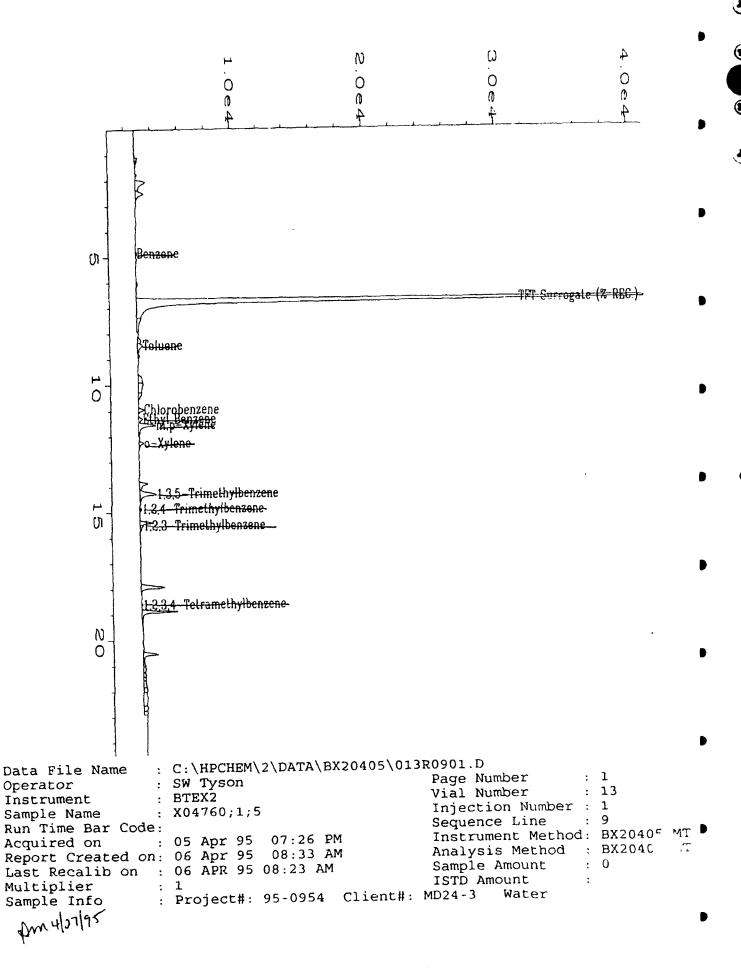
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

A = Not Available/Not Applicable.

Analyst

Approved



Method 602 Data Report

Client Sample Number	: MD24-4 ^J	Client Project No.	: 722450.21020
Lab Sample Number	: X04758	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/4/95	Matrix	: Water
Date Analyzed	: 4/4/95	Lab File No.	: BX2040418
·	•	Method Blank No.	: MB040495

Compound Name Benzene	Sample				
	Cas Number	Concent ug/L		RL ug/L	
	71-43-2		U	0.4	
Toluene	108-88-3		U	0.4	
Chlorobenzene	108-90-7	0.7	В	0.4	
Ethyl Benzene	100-41-4		U	0.4	
Total Xylenes	108-38-3, 106-42-3		U	0.4	
(m, p & o)	and 95-47-6				
♠,3,5-Trimethylbenzene	108-67-8		U	0.4	
1,2,4-Trimethylbenzene	95-63-6		U	0.4	
1,2,3-Trimethylbenzene	526-73-8		U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	0.8		0.4	

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene): Note: Total Xylenes consist of three isomers, two of which co-elute.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

The Xylene RL is for a single peak.

B = Compound also found in the blank.

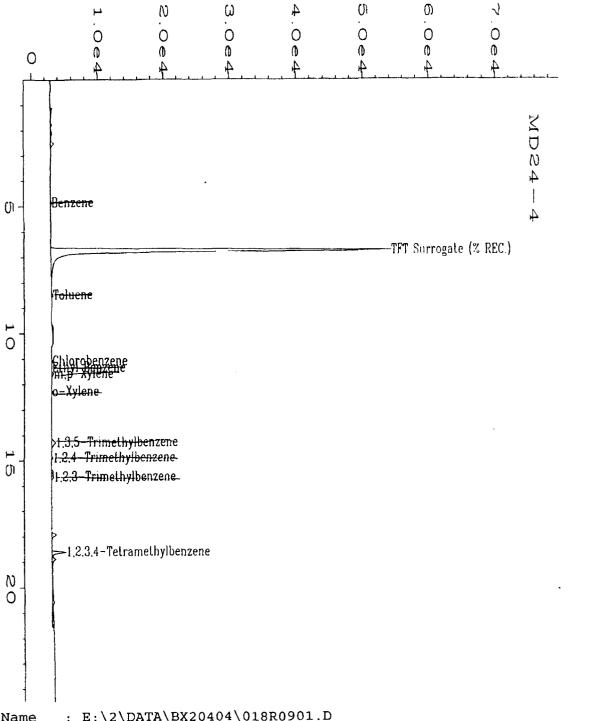
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

77%



: E:\2\DATA\BX20404\018R0901.D Data File Name Page Number : C.J. Cook Operator Vial Number : BTEX2 Instrument Injection Number : 1 : X04758;1;5 Sample Name : 9 Sequence Line Run Time Bar Code: Instrument Method: BX2040^ Acquired on : 04 Apr 95 12:56 PM : BX2040 Report Created on: 26 Apr 95 07:28 PM Analysis Method Sample Amount Last Recalib on : 14 APR 95 02:10 PM Multiplier ISTD Amount : 1

pm 4/27/95

Method 602 Data Report

: MD24-5 : Client Project No. : 722450.21020 Client Sample Number Lab Sample Number : X04756 Lab Project No. : 95-0954 : 1.00 Date Sampled : 3/23/95 Dilution Factor **Date Received** : 3/24/95 Method : 602 Matrix : Water **Date Prepared** : 4/4/95 Lab File No. Date Analyzed : 4/4/95 : BX2040416 Method Blank No. : MB040495

Compound Name	Sample			
	Cas Number	Concentration	RL	
Benzene	71-43-2	ug/L ∪	ug/L 0.4	
Toluene	108-88-3	0.5	0.4	
Chlorobenzene	108-90-7	U	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) ,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	

90%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (α,α,α-Trifluorotoluene):

B = Compound also found in the blank.

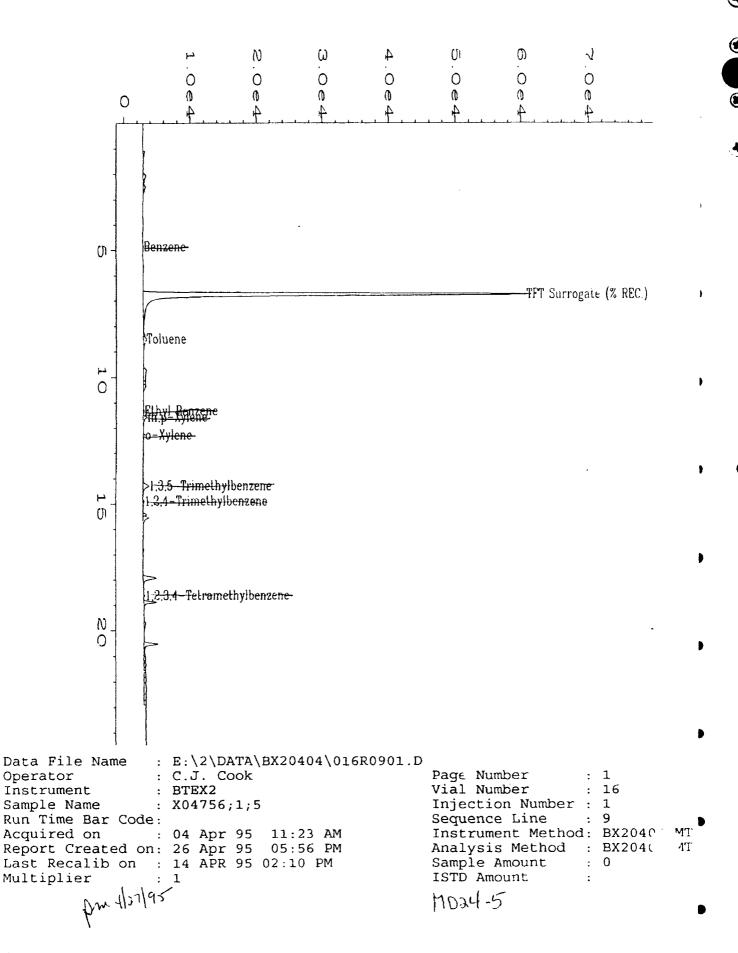
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

IA = Not Available/Not Applicable.

Analyst

Approved



Method 602 Data Report

Client Sample Number	: MD24-8 /	Client Project No.	: 722450.21020 : 95-0954
Lab Sample Number	: X04750	Lab Project No.	
Date Sampled	: 3/2 2 /95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/3/95	Matrix	: Water
Date Analyzed	: 4/3/95	Lab File No.	: BX2040320
		Method Blank No.	: MB040395

	Sample				
Compound Name	Cas Number	Concentration	RL		
		ug/L	ug/L		
Benzene	71-43-2	U	0.4		
Toluene	108-88-3	U	0.4		
Chlorobenzene	108-90-7	U	0.4	•	
Ethyl Benzene	100-41-4	U	0.4		
Total Xylenes	108-38-3, 106-42-3	υ	0.4		
(m, p & o)	and 95-47-6			,	
1,3,5-Trimethylbenzene	108-67-8	U	0.4	(
1,2,4-Trimethylbenzene	95-63-6	υ	0.4		
1,2,3-Trimethylbenzene	526-73-8	U	0.4		
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4		

Surrogate Recovery (α,α,α -Trifluorotoluene):

97% 70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

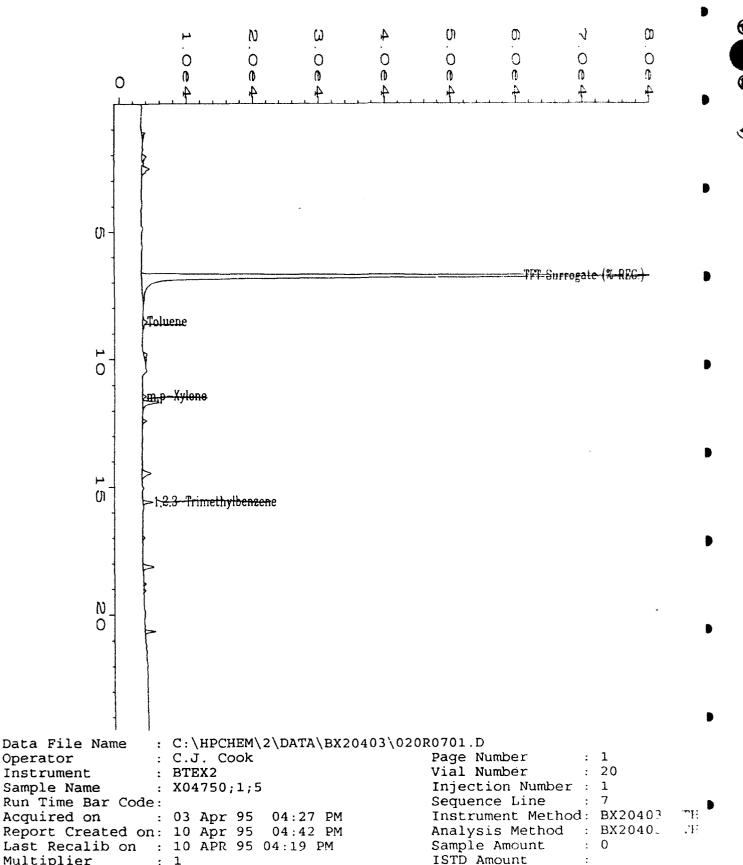
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst



Multiplier : 1 ISTD Amount Sample Info : PROJECT#: 95-0954 CLIENT#: MD24-8 WATER

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Method 602 Data Report

: 722450.21020 Client Project No. : MD24-41 Client Sample Number : X04759 Lab Project No. : 95-0954 Lab Sample Number : 1.00 Dilution Factor Date Sampled : 3/23/95 : 602 Method **Date Received** : 3/24/95 : Water : 4/5/95 Matrix **Date Prepared** : BX2040512 Lab File No. : 4/5/95 **Date Analyzed** Method Blank No. : MB040595

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	V	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	0.6	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) ●1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	

Surrogate Recovery (a,a,a-Trifluorotoluene): 96% 70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

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E = Extrapolated value.

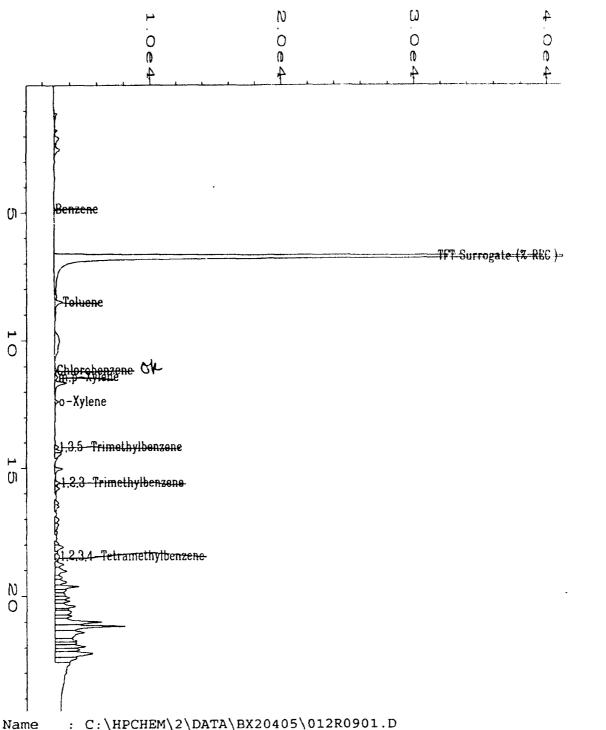
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.



: C:\HPCHEM\2\DATA\BX20405\012R0901.D Data File Name Operator : SW Tyson Page Number Vial Number Instrument : BTEX2 Injection Number: 1 Sample Name : X04759;1;5 Sequence Line : 9 Run Time Bar Code: Acquired on : 05 Apr 95 06:40 PM Report Created on: 06 Apr 95 08:32 AM Instrument Method: BX2040 Analysis Method : BX2040 Last Recalib on : 06 APR 95 08:23 AM Sample Amount : 0 ISTD Amount Multiplier : 1 : Project#: 95-0954 Client#: MD24-41 Sample Info Water pm 4/27/95

Method 602 Data Report

Or C I N I	24140 42	Olivera Destruction	722450 21020
Client Sample Number	: 24MP-1S	Client Project No.	: 722450.21020
Lab Sample Number	: X04754	Lab Project No.	: 95-0954
Date Sampled	: 3/23/95	Dilution Factor	: 1.00
Date Received	: 3/24/95	Method	: 602
Date Prepared	: 4/4/95	Matrix	: Water
Date Analyzed	: 4/4/95	Lab File No.	: BX2040411
		Method Blank No.	: MB040495

		Sample		
Compound Name	Cas Number	Concentration	n RL	
		ug/L	ug/L	
Benzene	71-43-2	•	•	
Toluene	108-88-3	•	•	
Chlorobenzene	108-90-7	1.1 E	3 0.4	(
Ethyl Benzene	100-41-4	•	•	
Total Xylenes	108-38-3, 106-42-3	•	•	
(m, p & o)	and 95-47-6	•		
1,3,5-Trimethylbenzene	108-67-8	•	•,	1
1,2,4-Trimethylbenzene	95-63-6	•	•	
1,2,3-Trimethylbenzene	526-73-8	•	•	
1,2,3,4-Tetramethylbenzene	488-23-3	73 🛰	0.4	1
1,2,5,4-1 chametry benzene	400 23 3	73		0.4

98%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

* = See BX2040511 for noted values, df = 100, 04/05/95.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (a,a,a-Trifluorotoluene):

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

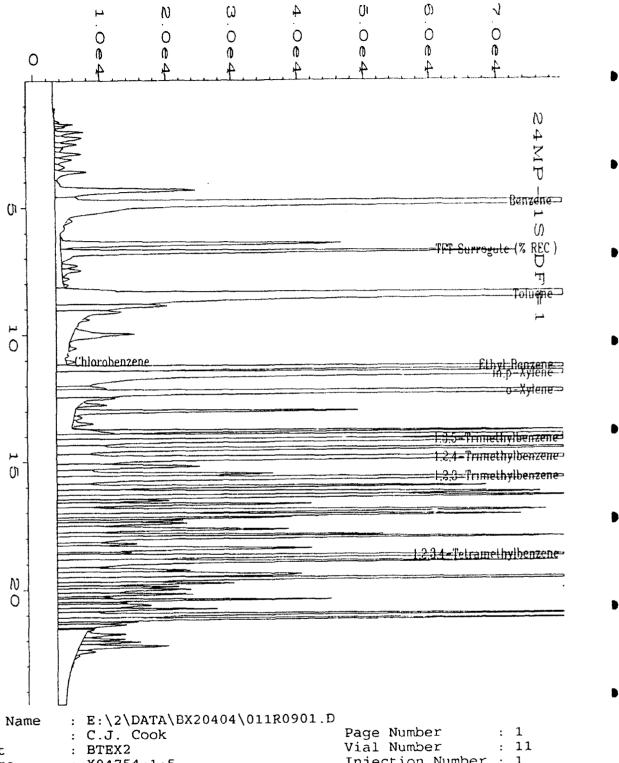
RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved

70%-130% (QC limits)



Data File Name Operator Instrument Injection Number: 1 Sample Name : X04754;1;5 Sequence Line : 9 Run Time Bar Code: Instrument Method: BX2040 : 04 Apr 95 07:33 AM Acquired on Analysis Method : BX2040 Report Created on: 26 Apr 95 07:29 PM Sample Amount Last Recalib on : 14 APR 95 02:10 PM ISTD Amount Multiplier : 1 24MP-15

Method 602 Data Report

Client Project No. : 722450.21020 Client Sample Number : 24MP-1S : X04754 Lab Project No. : 95-0954 Lab Sample Number : 100.00 Date Sampled : 3/23/95 Dilution Factor **Date Received** : 3/24/95 Method : 602 : Water : 4/5/95 Matrix Date Prepared Date Analyzed : 4/5/95 Lab File No. : BX2040511 Method Blank No. : MB040595

	Sample				
Compound Name	Cas Number	Concentration		RL	
		ug/L		ug/L	
Benzene	71-43-2	220		40.0	
Toluene	108-88-3	1800		40.0	
Chlorobenzene	108-90-7	62		40.0	
Ethyl Benzene	100-41-4	130		40.0	
Total Xylenes	108-38-3, 106-42-3	690		40.0	
(m, p & o)	and 95-47-6				
■,3,5-Trimethylbenzene	108-67-8	65		40.0	
1,2,4-Trimethylbenzene	95-63-6		U	40.0	
1,2,3-Trimethylbenzene	526-73-8		U	40.0	
1,2,3,4-Tetramethylbenzene	488-23-3		U	40.0	ļ
Surrogate Receivery (\alpha, \alpha, \alpha-Trifluo	rotoluene):	100%		70%-130% (QC limits)	

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

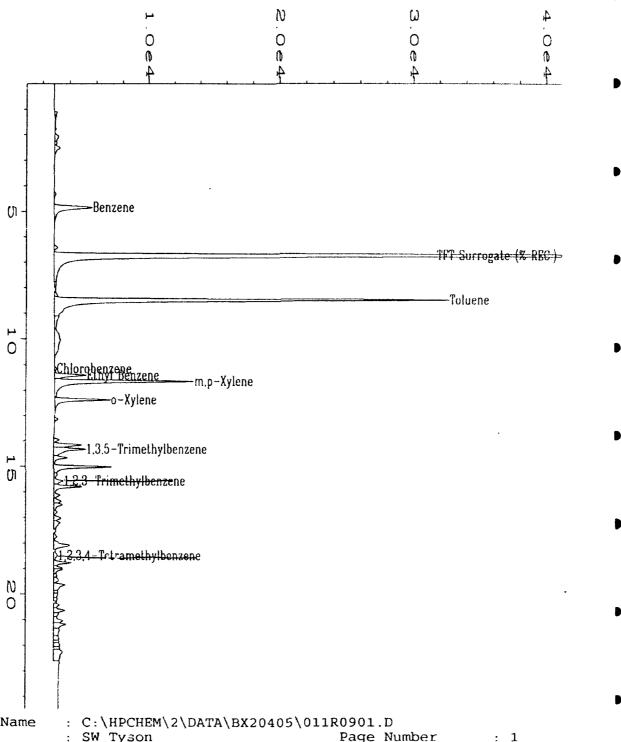
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available Not Applicable.

Analyst



Data File Name Operator : SW Tyson Page Number Instrument : BTEX2 Vial Number : 11 Sample Name : X04754;100;0.050 Injection Number: 1 Run Time Bar Code: Sequence Line : 9 Acquired on : 05 Apr 95 05:53 PM Instrument Method: BX20405 Report Created on: 06 Apr 95 08:32 AM Analysis Method : BX20405 . :: Last Recalib on : 06 APR 95 08:23 AM Sample Amount Multiplier ISTD Amount : 100 Sample Info : Project#: 95-0954 Client#: 24MP-1S

pm 4/27/95

Method 602 Data Report

Client Sample Number : 24MP-1D v Client Project No. : 722450.21020 Lab Sample Number : X04753 Lab Project No. : 95-0954 : 1.00 Date Sampled : 3/22/95 Dilution Factor **Date Received** : 3/24/95 Method : 602 Date Prepared : 4/3/95 Matrix : Water Date Analyzed : 4/3/95 Lab File No. : BX2040327

Method Blank No. : MB040395

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	15	0.4	
Toluene	108-88-3	, υ	0.4	
Chlorobenzene	108-90-7	1.0	0.4	
Ethyl Benzene	100-41-4	U	0.4	•
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	0.5	0.4	
₹,3,5-Trimethylbenzene	108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	•

Surrogate Recovery (α,α,α-Trifluorotoluene):

80%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

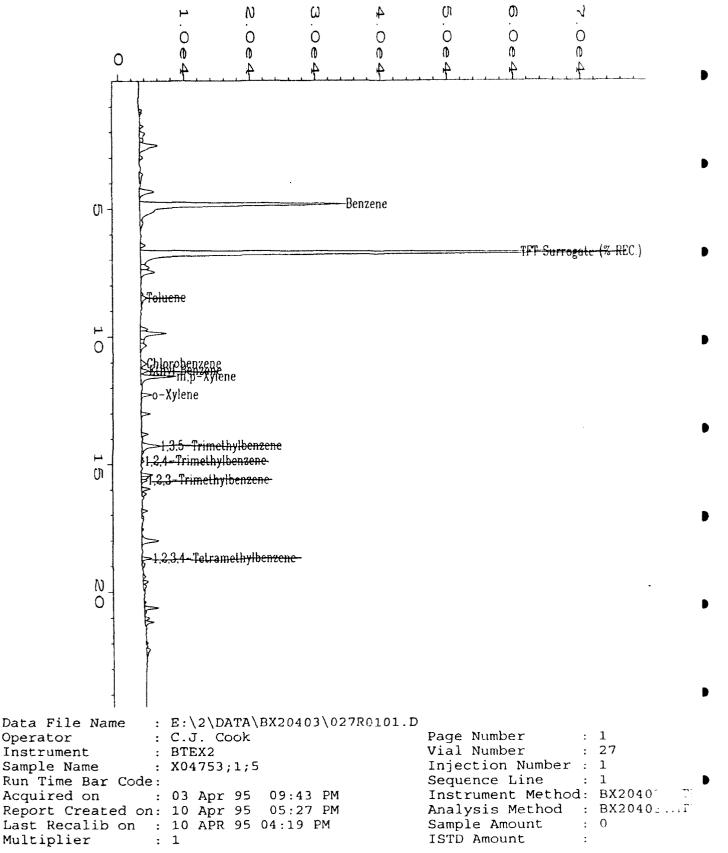
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.



20/19/ mg

Operator

Method 602 Data Report

: 722450.21020 Client Project No. Client Sample Number : 24MP-2D : 95-0954 Lab Project No. Lab Sample Number : X04751 : 1.00 Date Sampled : 3/22/95 Dilution Factor : 602 Method **Date Received** : 3/24/95 Matrix : Water : 4/3/95 Date Prepared : BX2040321 Lab File No. Date Analyzed : 4/3/95 Method Blank No. : MB040395

71-43-2	ug/L 0.4		ug/L	
			0.4	
08-88-3		U	0.4	
08-90-7	0.9		0.4	
00-41-4		U	0.4	
3-3, 106-42-3		U	0.4	
08-67-8		U	0.4	
95-63-6		U	0.4	
26-73-8		U	0.4	
88-23-3		U	0.4	
	3-3, 106-42-3 4 95-47-6 08-67-8 95-63-6 26-73-8	3-3, 106-42-3 d 95-47-6 08-67-8 05-63-6 26-73-8	3-3, 106-42-3 U 195-47-6 08-67-8 U 95-63-6 U	3-3, 106-42-3 U 0.4 195-47-6 08-67-8 U 0.4 05-63-6 U 0.4 26-73-8 U 0.4

Surrogate Recovery (α,α,α-Trifluorotoluene): 90% 70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

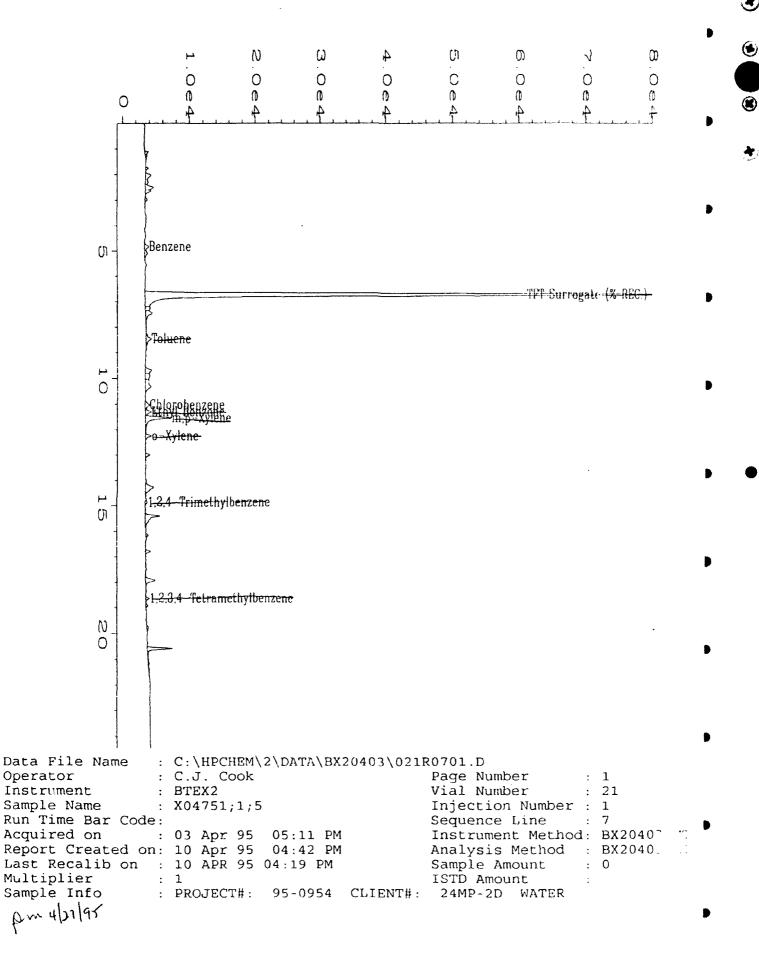
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available Not Applicable.

Analyst



EVERGREEN ANALYTICAL, INC.

4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

Method 602 Data Report

Client Project No. : 722450.21020 Client Sample Number : 24MP-2D : 95-0954 : X04751DUP Lab Project No. Lab Sample Number Dilution Factor : 100 Date Sampled : 3/22/95 : 602 Method **Date Received** : 3/24/95 : Water Date Prepared : 4/3/95 Matrix : BX2040322 : 4/3/95 Lab File No. Date Analyzed Method Blank No. : MB040395

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	0.9	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) ♠,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4	
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	
Surrogate Recovery (\alpha, \alpha, \alpha-Trifluo	rotoluene):	94%	70%-130% (QC I	imits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

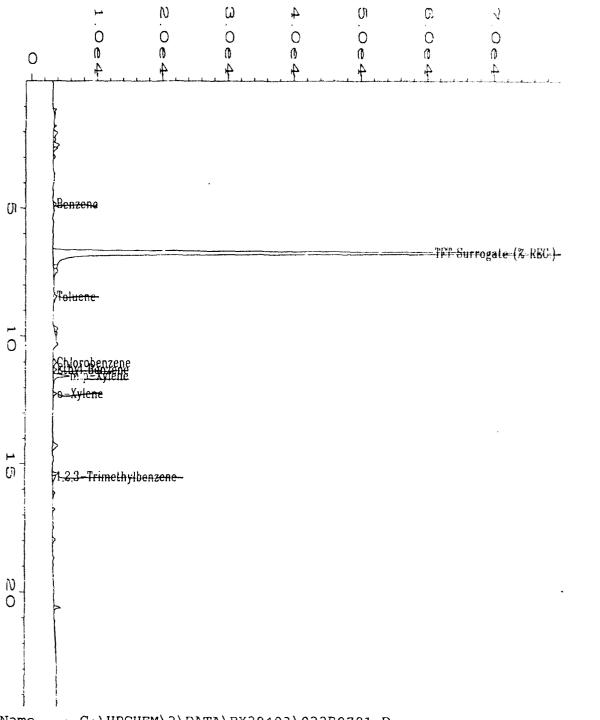
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst



Data File Name : C:\HPCHEM\2\DATA\BX20403\022R0701.D Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number : 22 Sample Name : X04751DUP;1;5 Injection Number: 1 Run Time Bar Code: : 7 Sequence Line Acquired on : 03 Apr 95 05:56 PM Instrument Method: BX2040 MI Report Created on: 10 Apr 95 04:43 PM Analysis Method : BX204(Last Recalib on : 10 APR 95 04:19 PM Sample Amount : 0 Multiplier : 1 ISTD Amount Sample Info : PROJECT#: 95~0954 CLIENT#: 24MP-2D WATER

Dm 4/27/95

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: 24MP-1D

Client Project No.

: 722450.21020/MAC

Lab Sample No.

: X04753

Lab Project No. EPA Method No. : 95-0954

Date Sampled Date Received

: 3/23/95 : 3/24/95

Matrix

: 5030/8015 Mod. : Water

Date Prepared

: 4/3/95

Method Blank

: MB040395

Date Analyzed

: 4/3/95

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	1.00	0.00	0.91	91%	60-140

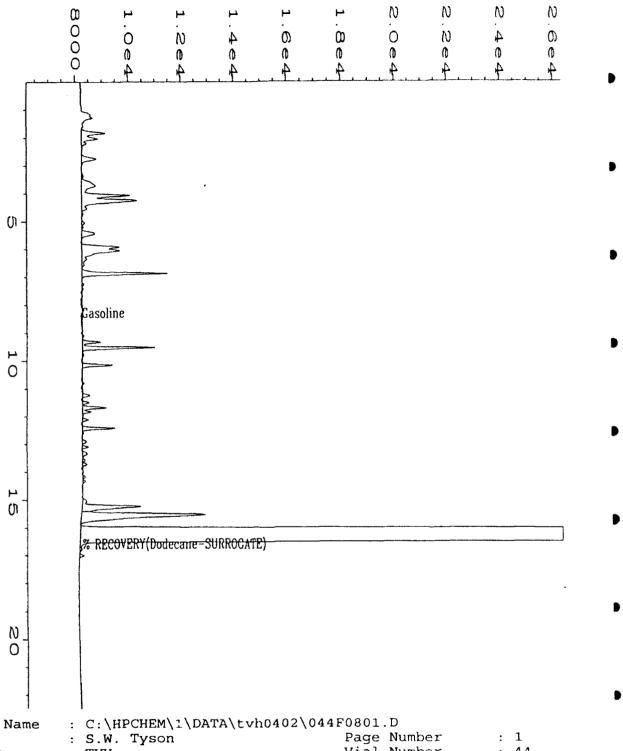
	Spike	MSD			C	C
Compound	Added	Concentration	MS	RPD	Lir	nits
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	1.00	0.95	95%	4	50	60-140

RPD:	0	out of	(1)	outside limits.

* = Values outside of QC limits.

Spike Recovery: 0 out of (2) outside limits.

Comments: NA = Not analyzed/not applicable.



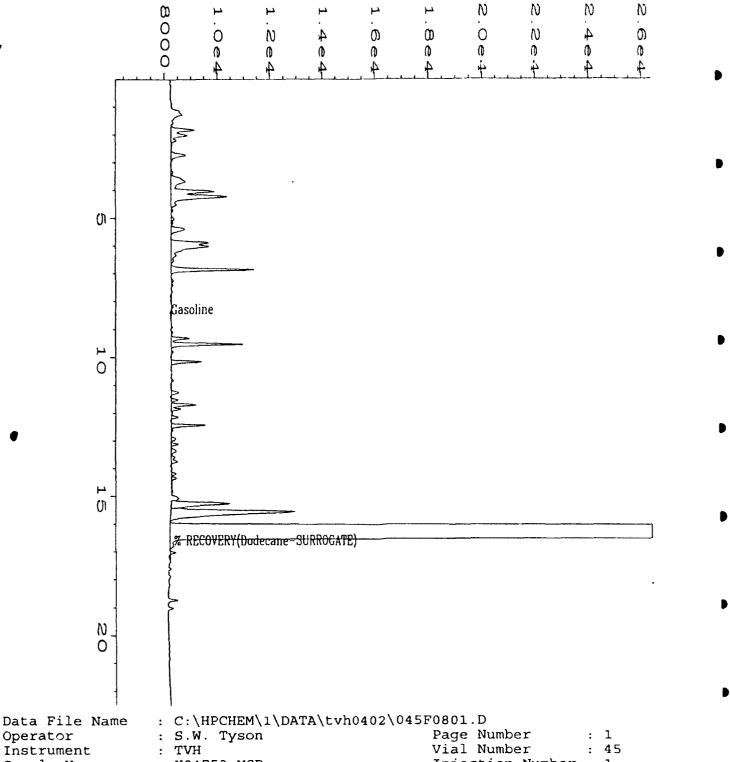
Data File Name Operator Vial Number : 44 Instrument : TVH Sample Name : X04753 MS Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Instrument Method: TVH040 Acquired on : 03 Apr 95 05:27 PM Analysis Method : TVH040. 05:50 PM Report Created on: 03 Apr 95 Sample Amount 01:36 PM Last Recalib on : 02 Apr 95 ISTD Amount Multiplier

Sample Info : 1 PPM SPIKE

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Operator Instrument Injection Number: 1 Sample Name : X04753 MSD Sequence Line : 8 Run Time Bar Code: Instrument Method: TVH0402.MTH : 03 Apr 95 06:01 PM "rquired on Analysis Method : TVH0402.MTH port Created on: 03 Apr 95 06:24 PM Sample Amount Last Recalib on : 02 Apr 95 01:36 PM ISTD Amount Multiplier 1

Sample Info : 1 PPM SPIKE

1

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Water Matrix Spike/Matrix Spike Duplicate Data Report

Client Project No.

: 722450.21020

: 24MP-2D

Lab Project No.

MacDill AFB : 95-0954

Lab Sample No. **Date Sampled**

Client Sample No.

: X04751

EPA Method No.

: 602

Date Received

: 3/22/95

Matrix

Date Prepared

: 3/24/95 : 4/3/95

Lab File Number(s)

: Water : BX2040324,25

Date Analyzed

: 4/3/95

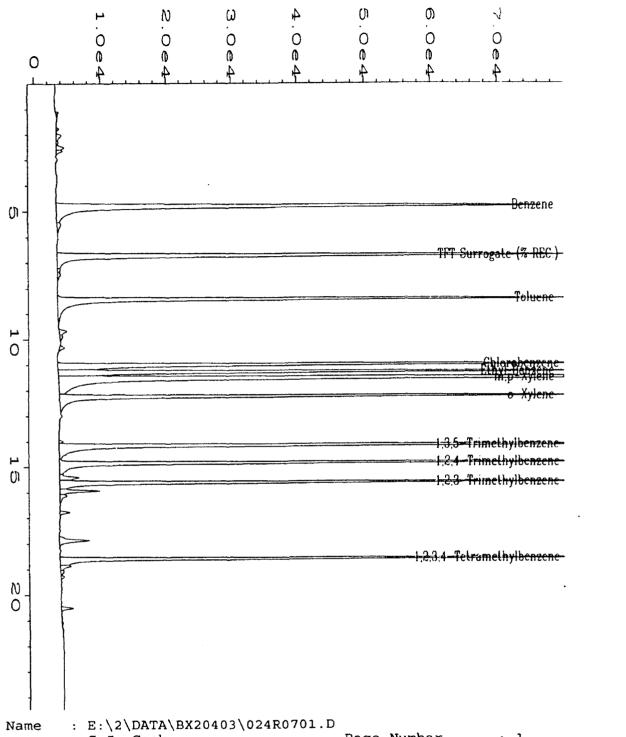
Method Blank

: MB040395

	Spike	Sample	MS		σc
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	40.0	0.4	32.7	81	65-121
Toluene	40.0	0.0	33.3	83	69-117
Ethyl Benzene	40.0	0.0	33.0	83	68-118
m,p-Xylene	80.0	0.0	72.0	90	66-116
o-Xylene	40.0	0.0	33.2	83	73-117
Chlorobenzene	40.0	0.0	32.9	82	65-121
1,3,5-TMB	40.0	0.0	36.0	90	65-121
1,2,4-TMB	40.0	0.0	32.8	82	65-121
1,2,3-TMB	40.0	0.0	33.9	85	65-171
1,2,3,4-TeMB	40.0	0.0	34.7	87	65-

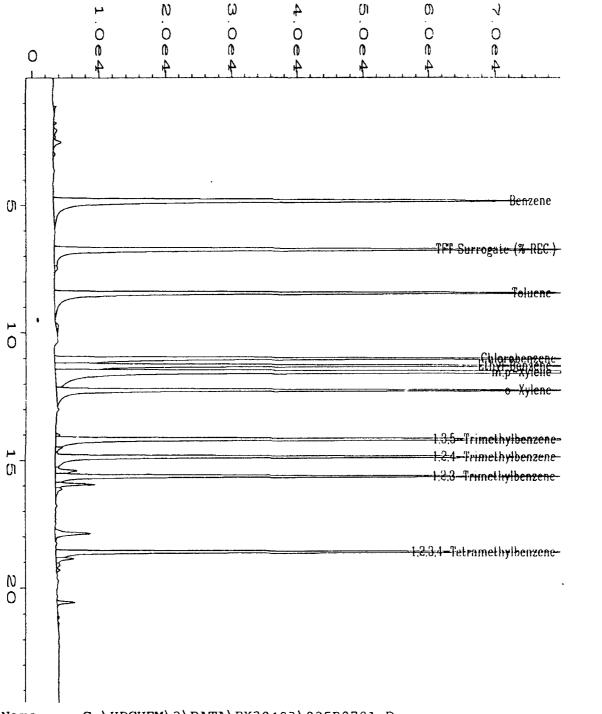
	Spike	MSD				C
Compound	Added	Concentration	MS	RPD	Limits	
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	40.0	32.7	81	0.0	17.4	65-121
Toluene	40.0	33.1	83	0.6	15.8	69-117
Ethyl Benzene	40.0	33.1	83	0.3	11.9	68-118
m,p-Xylene	80.0	70.3	88	2.4	15.4	66-116
√-Xylene	40.0	32.8	82	1.2	13.2	73-117
Chlorobenzene	40.0	33.6	84	2.1	17.4	65-121
1,3,5-TMB	40.0	34.8	87	3.4	17.4	65-121
1,2,4-TMB	40.0	32.4	81	1.2	17.4	65-121
1,2,3-TMB	40.0	33.6	84	0.9	17.4	65-121
1,2,3,4-TeMB	40.0	33.8	85	2.6	17.4	65-121

*= Values outside	e of QC limits.	
RPD:	O out of (10) outside limits.	
Spike Recovery:	O out of (20) outside limits.	
Comments:		A. a.a.
KSC		Pm Clella_
Analyst		Approved



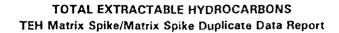
Data File Name Page Number : C.J. Cook Operator Vial Number : 24 : BTEX2 Instrument Injection Number: 1 Sample Name : X04751MS;1;5 : 7 Sequence Line Run Time Bar Code: Instrument Method: BX20403.MTH : 03 Apr 95 07:27 PM equired on Analysis Method : BX20403.MTH Leport Created on: 10 Apr 95 05:12 PM Sample Amount ISTD Amount Last Recalib on : 10 APR 95 04:19 PM : 0 Multiplier

24MP-2D



Data File Name : C:\HPCHEM\2\DATA\BX20403\025R0701.D Operator : C.J. Cook Page Number : BTEX2 Instrument Vial Number Sample Name : X04751MSD;1;5 Injection Number: 1 : 7 Run Time Bar Code: Sequence Line 'T: Acquired on : 03 Apr 95 08:12 PM Instrument Method: BX2040 Report Created on: 10 Apr 95 04:45 PM Analysis Method .T: : BX2040. Last Recalib on : 10 APR 95 04:19 PM Sample Amount Multiplier : 1 ISTD Amount Sample Info : PROJECT#: 95-0954 CLIENT#: 24MP-2D WATER

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021



Client Sample No.

: 24SS-2

Client Project No.

: 722.450.2102/MAC

Lab Sample No.

: X04770

Lab Project No.

: 95-0954 : 3500/MOD.8015

Date Sampled

: 3/23/95

EPA Method No.

: SOIL

Date Received
Date Prepared

: 3/24/95 : 3/29/95 Matrix Method Blank

: SB032995

Date Analyzed

: 3/31/95-4/1/95

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/mL)	(ug/mL)	(ug/L)	%REC	%REC
Jet Fuel	1000	693	1520	83	60-140

	Spike	MSD			C	C
Compound	Added	Concentration	MSD	RPD	Limits	
	(ug/mL)	(ug/mL)	%REC		RPD	%REC
Jet Fuel	1000	1570	88	5.9	50	60-140

Values outside of QC l	limits.
------------------------	---------

RPD:

O out of (1) outside limits.

Spike Recovery:

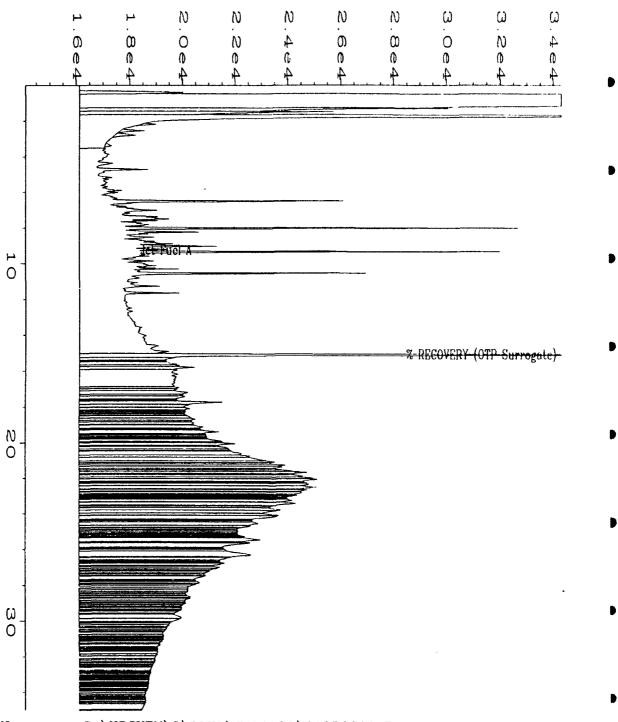
O out of (1) outside limits.

Comments:

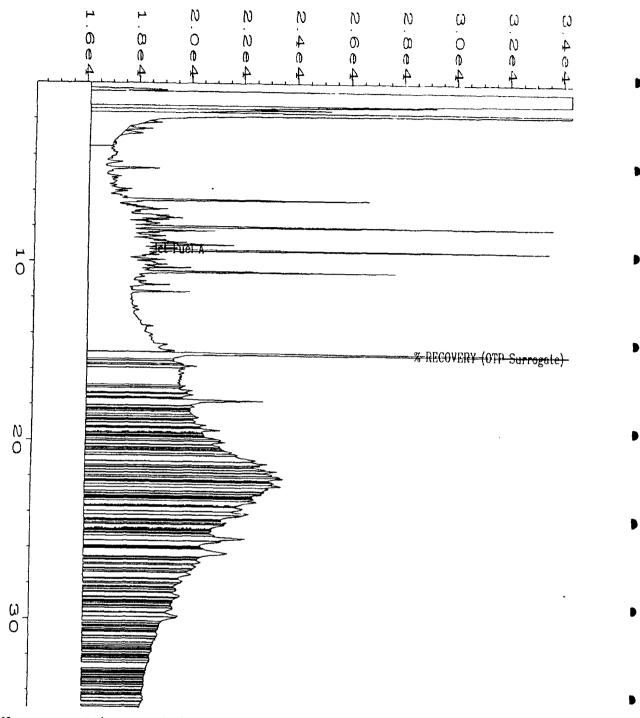
NA = Not analyzed/not applicable.

Values reported in ug/mL in the liquid extract.

mho



Data File Name :	C:\HPCHEM\2\DATA\JET0331\012	R0801.D
Operator :	Dawn N. Guildner	Page Number : 1
Instrument :	TEH	Vial Number : 12
Sample Name :		Injection Number : 1
Run Time Bar Code:		Sequence Line : 8
	31 Mar 95 08:18 PM	Instrument Method: JET033 Ti
	31 Mar 95 08:54 PM	Analysis Method : JETU33 ATI
Last Recalib on :	31 Mar 95 02:18 PM	Sample Amount : 0
Multiplier :	1	ISTD Amount :



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Method 602 Data Report Method Blank Report

Method Blank Number

: MB040395

Client Project No.

: 722450.21020

Date Prepared

: 4/3/95

Lab Project No.

: 95-0954

Date Analyzed

: 4/3/95

Dilution Factor

: 1.00

Method

: 602/8020

Matrix

: Water

Lab File No.

: BX2040318

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	(
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4	1
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	1

Surrogate Recovery (α,α,α-Trifluorotoluene):

99%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

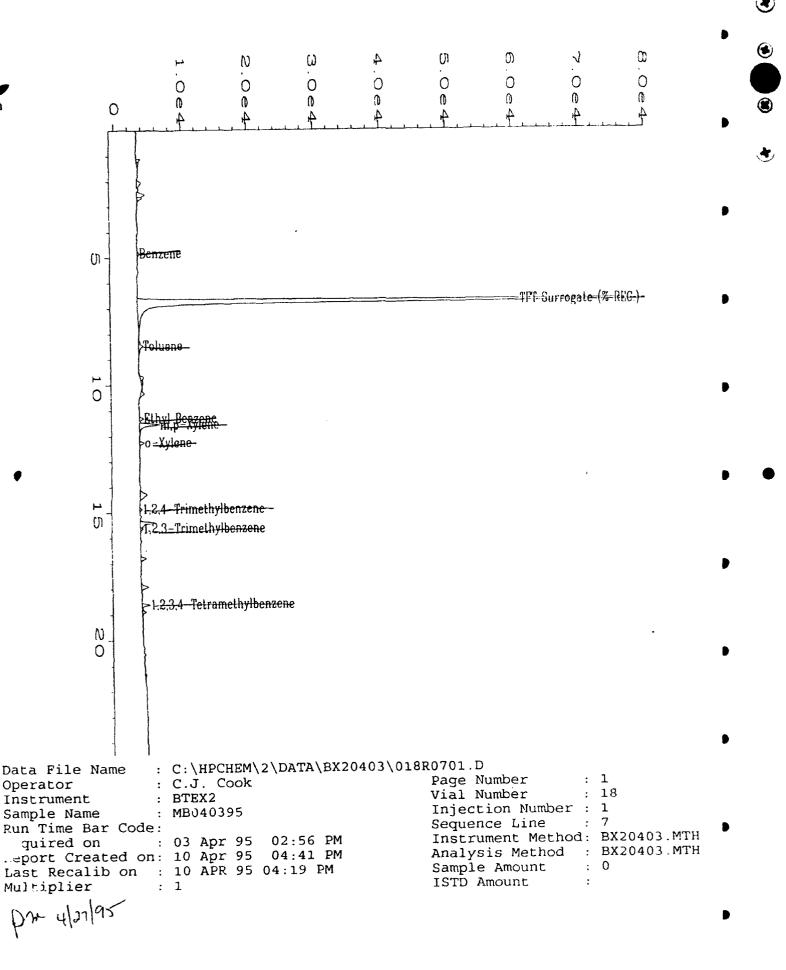
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.



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Method 602 Data Report Method Blank Report

Method Blank Number

: M8040495

Client Project No.

: 722450.21020

Date Prepared Date Analyzed : 4/4/95 : 4/4/95 Lab Project No.

: 95-0954

Dilution Factor

: 1.00

Method Matrix

: 602/8020

: Water

Lab File No.

: BX2040409

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	Sample				
Compound Name	Cas Number	Concentration	RL		
		ug/L	ug/L		
Benzene	71-43-2	υ	0.4		
Toluene	108-88-3	U	0.4		
Chlorobenzene	108-90-7	0.7	0.4	•	
Ethyl Benzene	100-41-4	U	0.4		
Total Xylenes	108 38-3, 106-42-3	U	0.4		
(m, p & o)	and 95-47-6				
1,3,5-Trimethylbenzene	108-67-8	U	0.4	Ð	
1,2,4-Trimethylbenzene	95-63-6	U	0.4		
1,2,3-Trimethylbenzene	526-73-8	U	0.4		
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	P	

Surrogate Recovery $(\alpha, \alpha, \alpha$ -Trifluorotoluene):

97%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

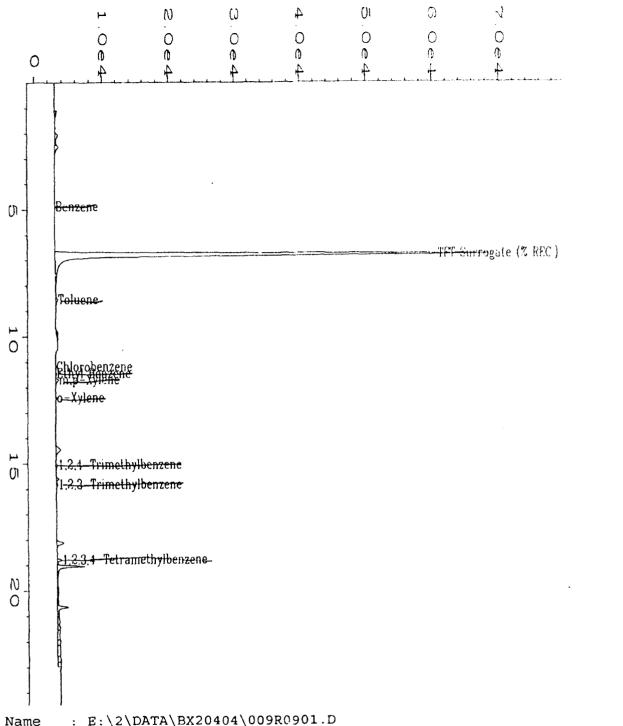
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.



: E:\2\DATA\BX20404\009R0901.D Data File Name Page Number : C.J. Cook Operator ; 9 Vial Number Instrument : BTEX2 Injection Number: 1 : MB040495 Sample Name : 9 Sequence Line Run Time Bar Code: Instrument Method: BX20404.MTH quired on : 04 Apr 95 06:01 AM Analysis Method : BX20404.MTH Laport Created on: 26 Apr 95 05:52 PM Sample Amount : 0 Last Recalib on : 14 APR 95 02:10 PM ISTD Amount : 1 Multiplier

Dur 4/22/22

Method 602 Data Report Method Blank Report

Method Blank Number

: MB040595

Client Project No.

: 722450.21020

Date Prepared

: 4/5/95

Lab Project No.

: 95-0954

Date Analyzed

: 4/5/95

Dilution Factor

: 1.00

Method

: 602/8020

Matrix

: Water

Lab File No.

: BX1040509

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	U	0.4	·····
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	1
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	υ	0.4	
1,3,5-Trimethylbenzene	108-67-8	U	0.4	(
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	•

Surrogate Recovery (a,a,a-Trifluorotoluene):

93%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

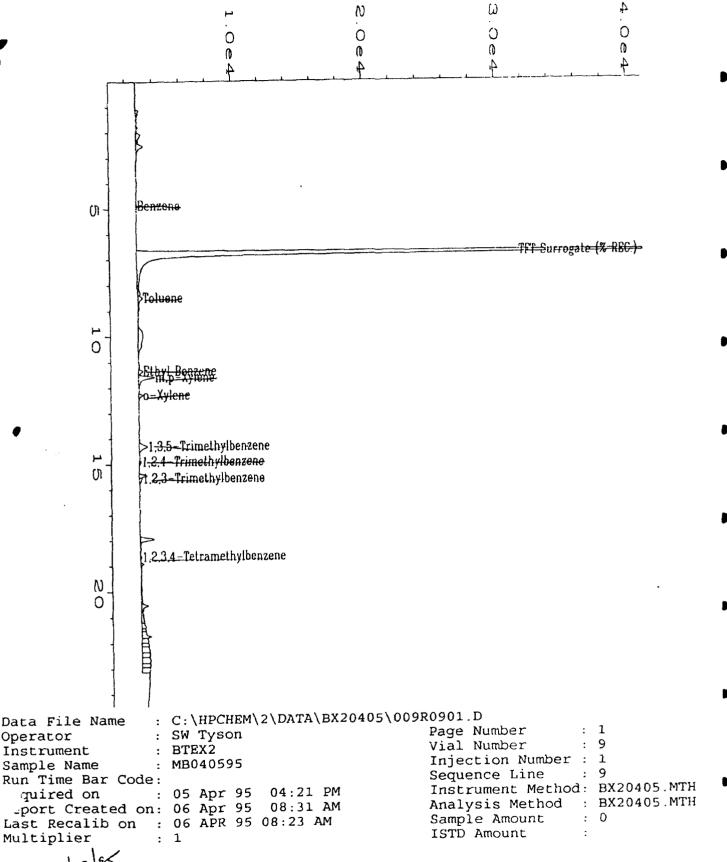
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst



pr 4/27/95

Operator

Method 8020 Data Report Method Blank Report

Method Blank Number

: MB040695

Client Project No.

: 722450.21020

Date Extracted/Prepared

: 4/6/95

Lab Project No.

: 95-0954 : 1.00

Date Analyzed : 4/6/95

Dilution Factor Method

: 602/8020

Matrix

: Water

Lab File No.

: BX2040609

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	!
Benzene	71-43-2	U	1.0	
Toluene	108-88-3	U	1.0	
Chlorobenzene	108-90-7	U	1.0	1
Ethyl Benzene	100-41-4	U	1.0	
Total Xylenes	108-38-3, 106-42-3 and 95-47-6	U	1.0	
(m, p & o) 1,3,5-Trimethylbenzene	108-67-8	U	1.0	(
1,2,4-Trimethylbenzene	95-63-6	U	1.0	
1,2,3-Trimethylbenzene	526-73-8	U	1.0	
1,2,3,4-Tetramethylbenzene	488-23-3	U	1.0	1

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

105%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

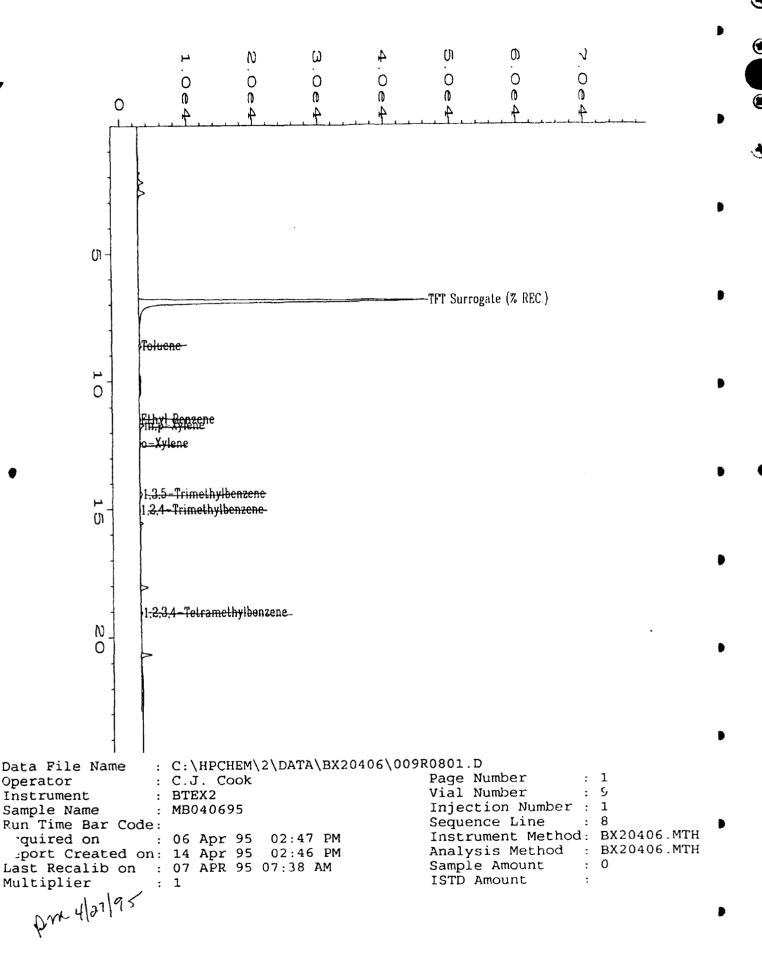
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst





Method 602 Data Report

Client Sample Number : Trip Blank Client Project No. : 722450.21020 : 95-0954 Lab Sample Number : X04763 Lab Project No. Date Sampled : 3/22/95 Dilution Factor : 1.00 : 602 **Date Received** : 3/24/95 Method Date Prepared : 4/5/95 Matrix : Water Date Analyzed : 4/6/95 Lab File No. : BX2040521 Method Blank No. : MB040595

Compound Name	Sample Cas Number Concentration RL			
		ug/L	ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	. υ	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	
1.2.4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	
Surrogate Recovery (α,α,α-Trifluo	rotoluene):	88%	70%-130% (QC li	mits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

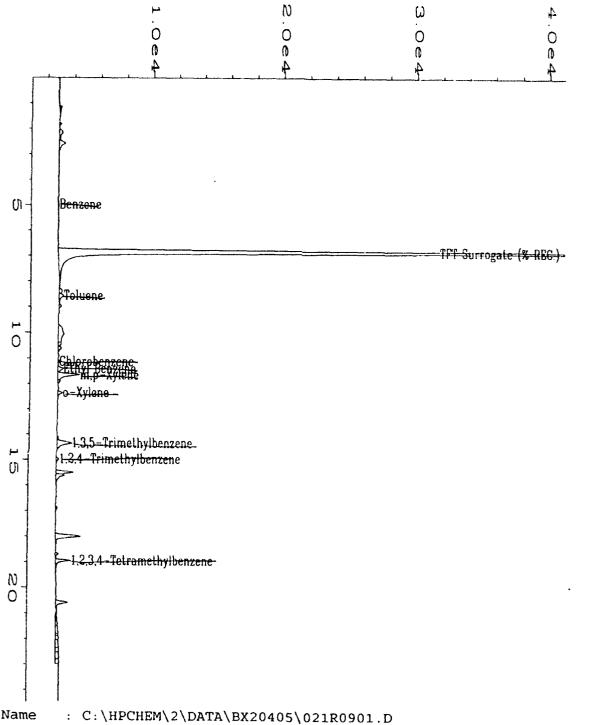
B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst



Data File Name Operator : SW Tyson Page Number Instrument : BTEX2 Vial Number : 21 Sample Name : X04763;1;5 Injection Number: 1 Run Time Bar Code: Sequence Line : 9 quired on : 06 Apr 95 01:29 AM Instrument Method: BX20405.MTH Port Created on: 06 Apr 95 08:39 AM Analysis Method : BX20405.MTH Last Recalib on : 06 APR 95 08:23 AM Sample Amount Multiplier ISTD Amount Sample Info : Project#: 95-0954 Client#: TRIP BLANK Water Dm 4/2/95

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number
Date Extracted/Prepared

: LCS040395

Dilution Factor Method : 1.00 : 602

Date Analyzed
Spike Amount (ug/L)

: 4/3/95 : 4/3/95

: 20.0

Matrix Lab File No.

: Water : BX20403019

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	17.2	86.0	71.0-119.0*
Toluene	108-88-3	17.8	89.0	73.0-111.0*
Chlorobenzene	108-90-7	16.8	84.0	64.0-119.0*
Ethyl Benzene	100-41-4	17.5	87.5	75.0-114.0*
m,p-Xylene	108-38-3	37.8	106.0	75.0-114.0*
o-Xylene	106-42-3 95-47-6	17.4	87.0	64.0-1 04
1,3,5-Trimethylbenzene	108-67-8	18.2	91.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	16.5	82.5	50.0-150.0
1,2.3-Trimethylbenzene	526-73-8	16.4	82.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	16.4	82.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	92%	70%-130%	(QC limits)

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

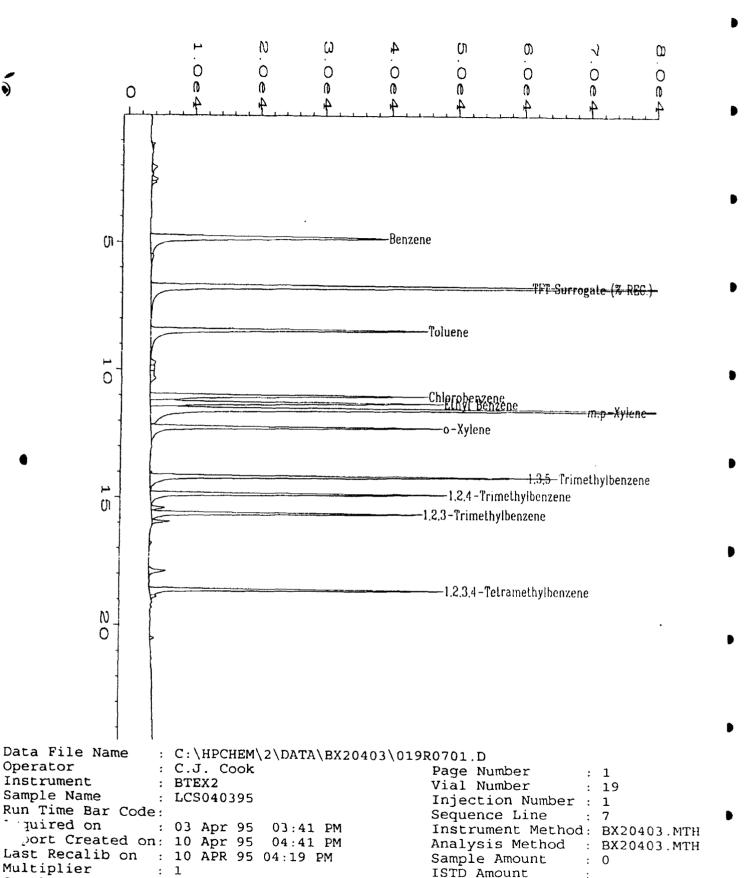
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst

^{* =} Limits established 4/3/95 KSC



Multiplier Sample Info

: REF #1649

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS040495
Date Extracted/Prepared : 4/4/95
Date Analyzed : 4/4/95
Spike Amount (ug/L) : 20.0

Dilution Factor Method Matrix Lab File No.

: Water : BX20404010

: 1.00

: 602

GC : BX2

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.6	78.0	71.0-119.0*
Toluene	108-88-3	15.9	79.5	73.0-111.0*
Chlorobenzene	108-90-7	15.9	79.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.2	81.0	75.0-114.0°
m,p-Xylene	108-38-3	17.2	86.0	75.0-114.0°
o-Xylene	106-42-3 95-47-6	16.0	80.0	64.0-110 0*
1,3,5-Trimethylbenzene	108-67-8	16.7	83.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.1	85.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.0	100.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	18.7	93.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	98%	70%-130%	(OC limits)

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

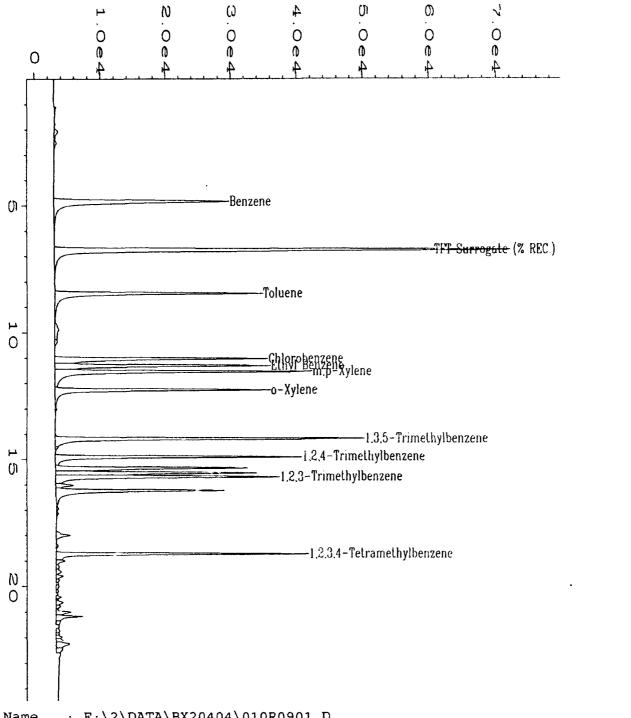
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst

Approved

^{* =} Limits established 4/3/95 KSC



: E:\2\DATA\BX20404\010R0901.D Data File Name Page Number Operator : C.J. Cook : BTEX2 Vial Number : 10 Instrument Sample Name LCS040495 Injection Number: 1 : 9 Run Time Bar Code: Sequence Line Instrument Method: BX20404.MTH Arquired on : 04 Apr 95 06:48 AM Analysis Method : BX20404.MTH port Created on: 26 Apr 95 05:52 PM Sample Amount : 0 Last Recalib on : 14 APR 95 02:10 PM ISTD Amount Multiplier : 1

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report Laboratory Control Sample (LCS)

Dilution Factor : 1.00 LCS Number : LCS040595 Method : 602 Date Extracted/Prepared : 4/5/95 Date Analyzed : 4/5/95 Matrix : Water Lab File No. : BX2040510 Spike Amount (ug/L) : 20.0

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.8	79.0	71.0-119.0*
Toluene	108-88-3	16.2	81.0	73.0-111.0*
Chlorobenzene	108-90-7	16.3	81.5	64.0-119.0*
Ethyl Benzene	100-41-4	16.6	83.0	75.0-114.0*
m,p-Xylene	108-38-3	17.6	88.0	75.0-114.0*
o-Xylene	106-42-3 95-47-6	16.7	83.5	64.0-119 ^*
1,3,5-Trimethylbenzene	108-67-8	16.9	84.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.4	87.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.1	100.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.9	89.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	93%	70%-130%	(QC limits)

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

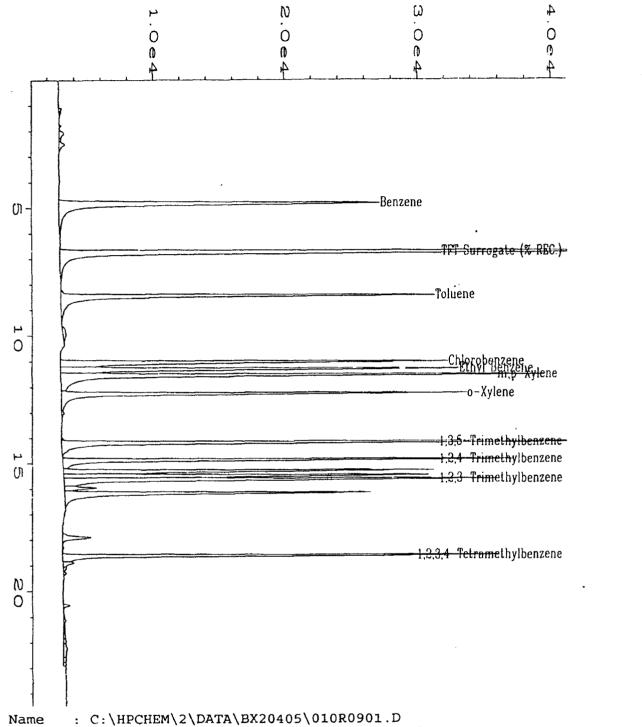
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst

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^{* =} Limits established 4/3/95 KSC



Data File Name Page Number Operator : SW Tyson : 10 Instrument : BTEX2 Vial Number Injection Number: 1 Sample Name : LCS040595 Sequence Line Run Time Bar Code: Instrument Method: BX20405.MTH Acquired on : 05 Apr 95 05:07 PM Ort Created on: 06 Apr 95 08:32 AM Last Recalib on : 06 APR 95 08:23 AM Analysis Method : BX20405.MTH : 0

Sample Amount ISTD Amount Multiplier

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report Laboratory Control Sample (LCS)

Dilution Factor : 1.00 LCS Number : LCS040695 : 602 Method Date Extracted/Prepared : 4/6/95 Date Analyzed : 4/6/95 Matrix : Water : 20.0 Lab File No. : BX2040610 Spike Amount (ug/L)

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.8	79.0	71.0-119.0*
Toluene	108-88-3	16.2	81.0	73.0-111.0*
Chlorobenzene	108-90-7	16.2	81.0	64.0-119.0*
Ethyl Benzene	100-41-4	16.8	84.0	75.0-114.0*
m,p-Xylene	108-38-3 106-42-3	18.2	91.0	75.0-114.0*
o-Xylene	95-47-6	16.6	83.0	64.0-119 0*
1,3,5-Trimethylbenzene	108-67-8	17.1	85.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.4	87.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.8	104.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.4	87.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	106%	70%-130%	(QC limits)

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

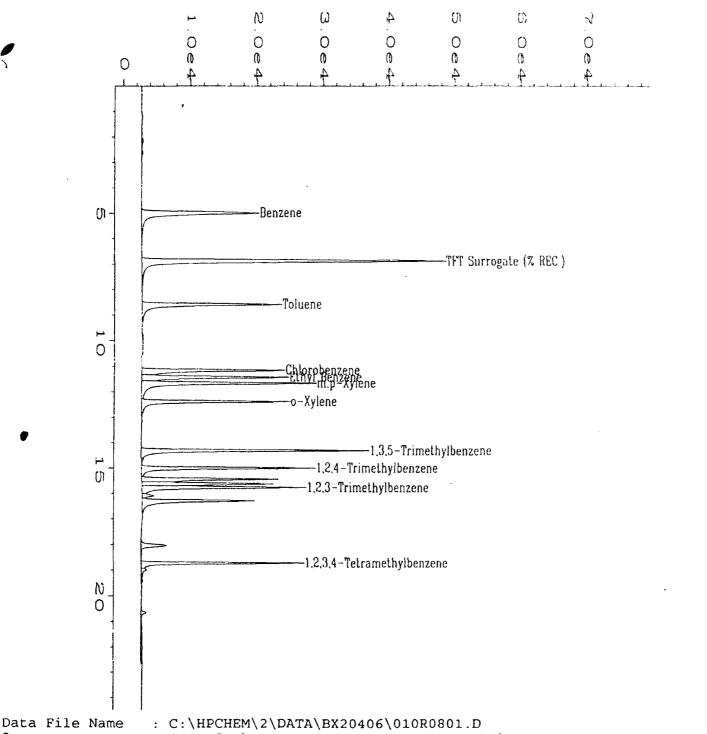
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst

Approved

^{* =} Limits established 4/3/95 KSC



Operator : C.J. Cook Page Number Instrument : BTEX2 Vial Number : 10 Sample Name : LCS040695 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Instrument Method: BX20406.MTH

: BX20406.MTH Analysis Method Sample Amount

ISTD Amount Multiplier

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH-GASOLINE)

Date Sampled : 3/22,23/95 : 3/24/95

Client Project Number Lab Project Number

: 722450.21020/MACDILL

Date Received Date Prepared : 4/2,3/95 Date Analyzed : 4/2,3,4/95

Matrix

: 95-0954 : Water

Method Number : 5030/Mod.8015

Evergreen	Client	Surrogate	TVH	RL
Sample #	Sample #	Recovery	mg/L	mg/L
•				
MB040295	METHOD BLANK	100%	U	0.1
MB040395	METHOD BLANK	75%	U	0.1
MB040395B	METHOD BLANK	101%	U	0.1
X04750	MD24-8	100%	U	0.1
X04751	24MP-2D	108%	U	0.1
X04751 DUP	24MP-2D	108%	U	0.1
X04752	24MP-2S	102%	1.0	0.1
X04753	24MP-1D	103%	U	0.1
X04754	24MP-1S	103%	13	0.5
X04755	MD24-2	98%	U	0.1
X04756	MD24-5	101%	U	0.1
X04757	24MP-4S	107%	U	0.1
X04758	MD24-4	108%	U	0.1
X04759	MD24-41	106%	U	0.1
X04760	MD24-3	106%	U	0.1
X04761	MD24-1	107%	U	0.1
X04762	24MP-5D	105%	U	0.1
X04762 DUP	24MP-5D	104%	U	0.1

QUALIFIERS

U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

RL = Reporting Limit





Date Sampled

: 3/23/95

Client Project Number

: 722450.21020/MACDILL

Date Received

: 3/24/95

Lab Project Number

Method Number

: 95-0954

: Soil

Date Prepared Date Analyzed

: 4/3/95 : 4/4/95 Matrix

: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH * mg/Kg	RL* mg/Kg
MB040395B	METHOD BLANK	100%	U	0.1
X04770	24SS-2	102%	U	0.14

QUALIFIERS

U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

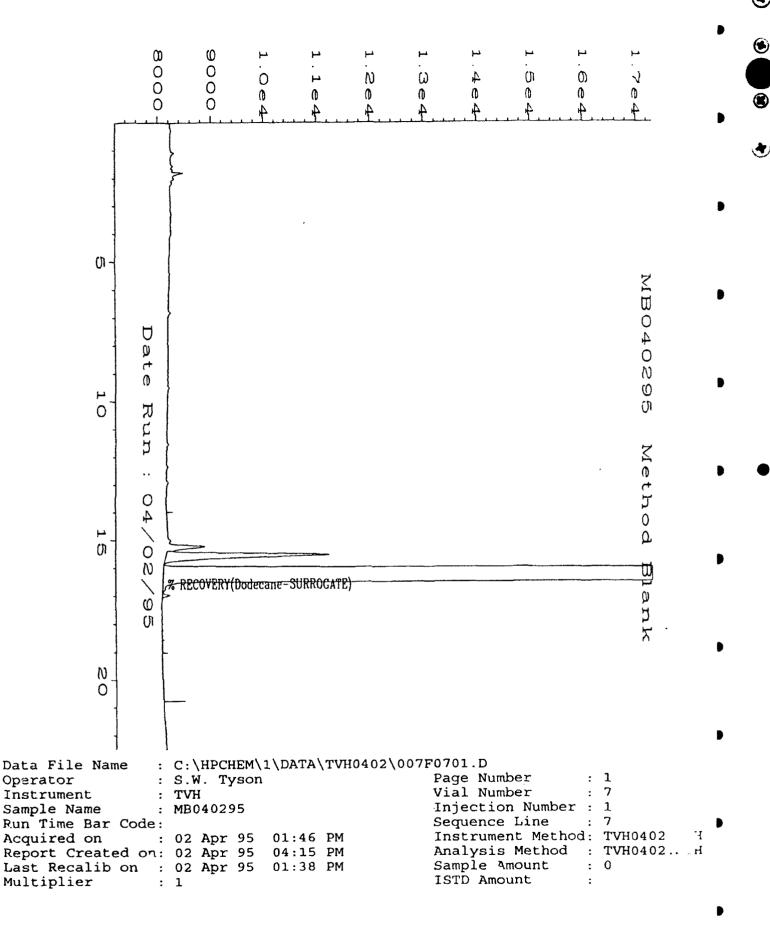
E = Extrapolated value.

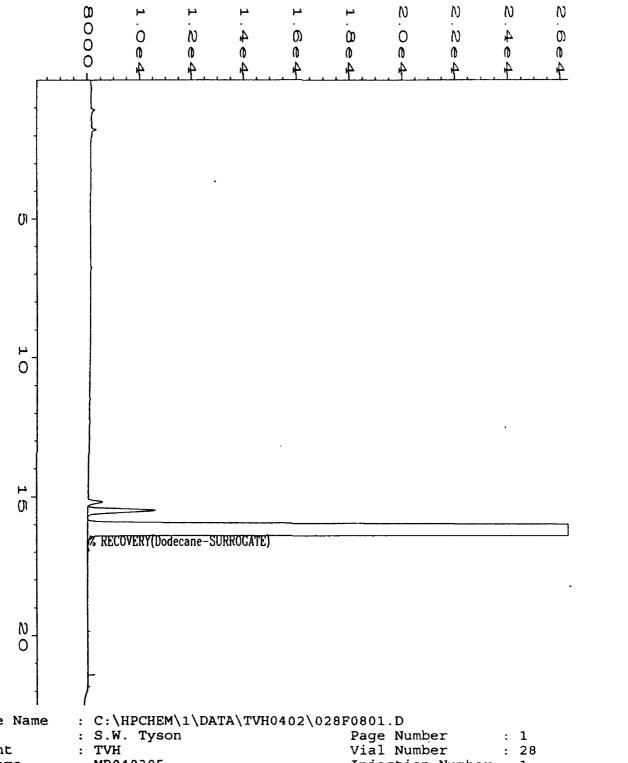
RL = Reporting Limit

Analyst

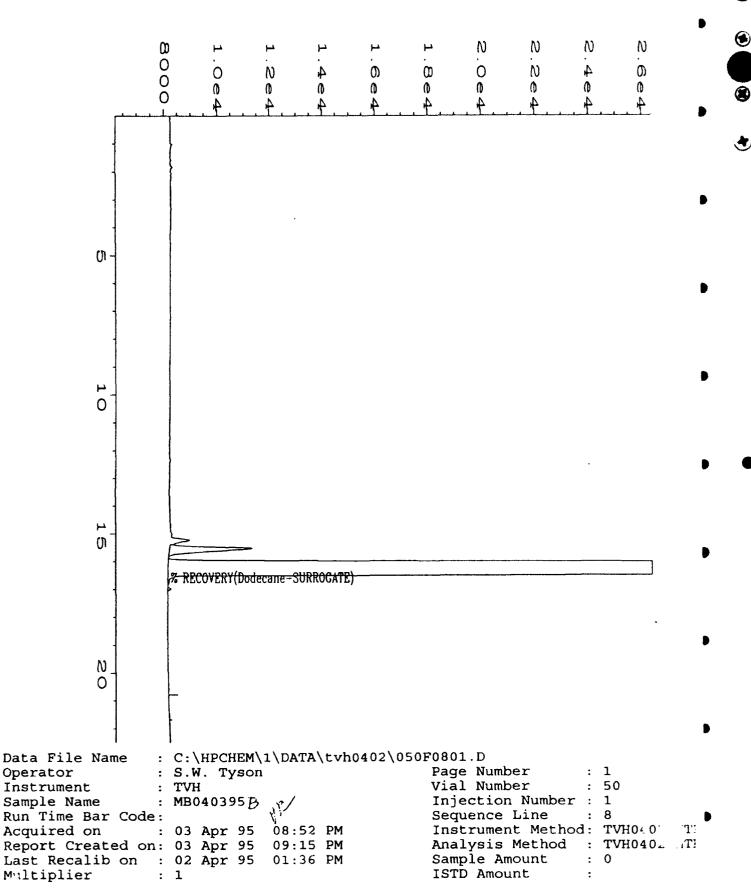
Approved

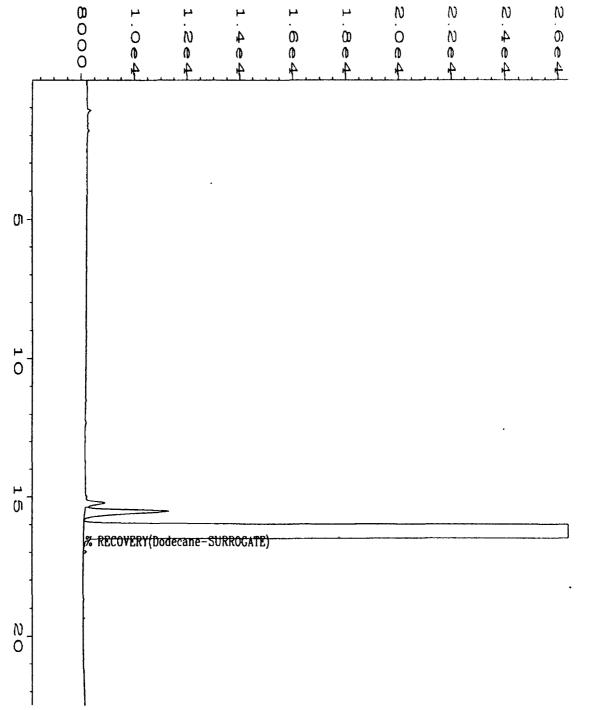
^{* =} Result reported on a dry weight basis.





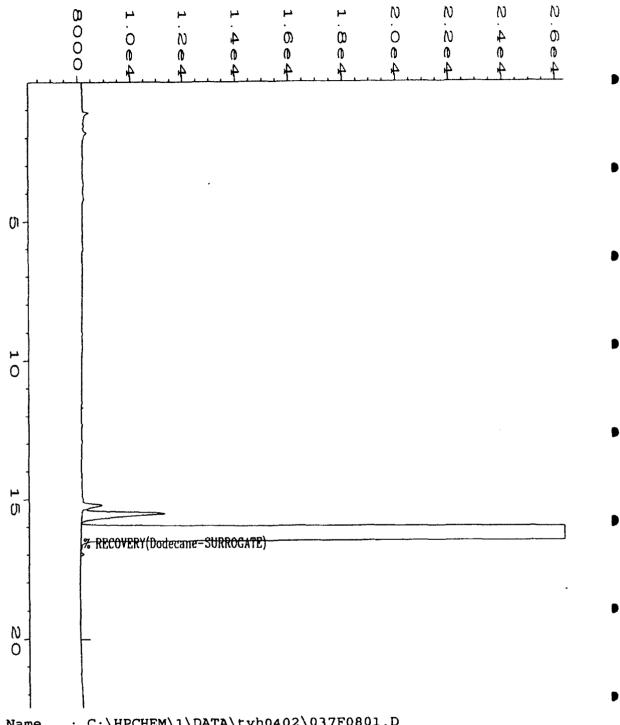
Data File Name Operator Instrument Sample Name : MB040395 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 equired on : 03 Apr 95 08:24 AM Instrument Method: TVH0402.MTH eport Created on: 04 Apr 95 09:55 AM Analysis Method : TVH0404.MTH Last Recalib on : 02 APR 95 01:36 PM Sample Amount : 0 ISTD Amount Multiplier : 1





Data File Name : C:\HPCHEM\1\DATA\tvh0402\033F0801.D Operator : S.W. Tyson Page Number : 1 Instrument Vial Number : TVH : 33 Sample Name : X04750 ;1;5 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 ` guired on : 03 Apr 95 11:14 AM Instrument Method: TVH0402.MTH Analysis Method : TVH0402.MTH port Created on: 03 Apr 95 11:37 AM Last Recalib on : 02 Apr 95 01:36 PM Sample Amount : 0 Multiplier ISTD Amount : 1

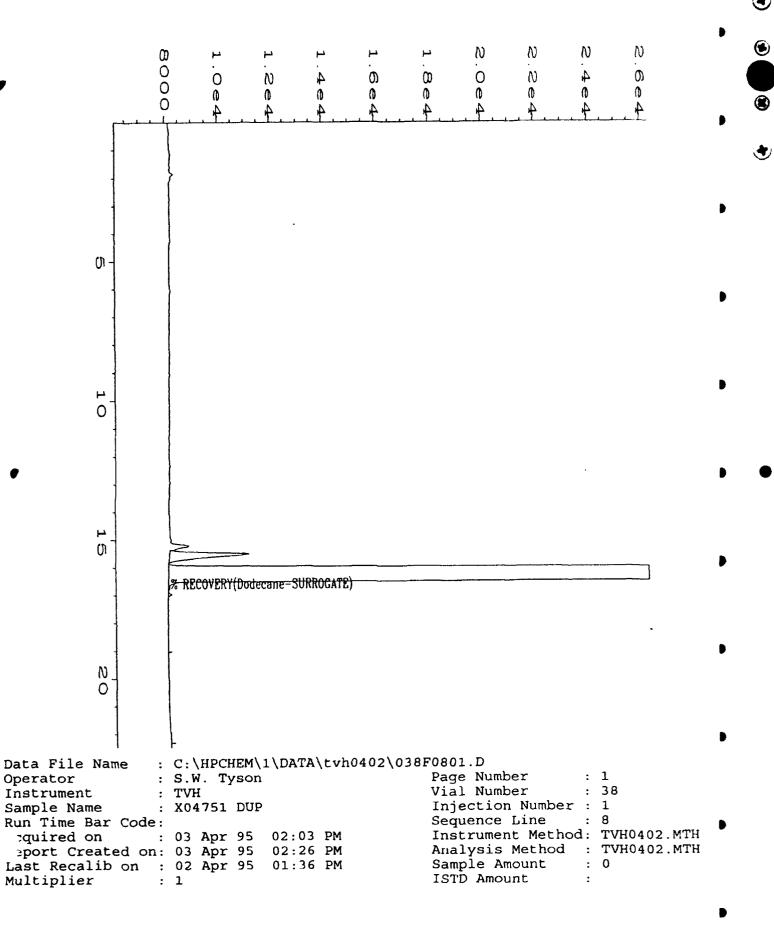
Sample Info : PROJECT # 95-0954 CLIENT # MD24-8 WATER



```
: C:\HPCHEM\1\DATA\tvh0402\037F0801.D
Data File Name
                                                 Page Number
Operator
                 : S.W. Tyson
                                                 Vial Number
Instrument
                 : TVH
Sample Name
                                                 Injection Number: 1
                 : X04751;1;5
                                                 Sequence Line
                                                                  : 8
Run Time Bar Code:
                                                 Instrument Method: TVH040
Acquired on
                 : 03 Apr 95
                              01:29 PM
                                                 Analysis Method : TVH040
Report Created on: 03 Apr 95
                              01:53 PM
                                                 Sample Amount
                                                                  : 0
Last Recalib on : 02 Apr 95
                              01:36 PM
```

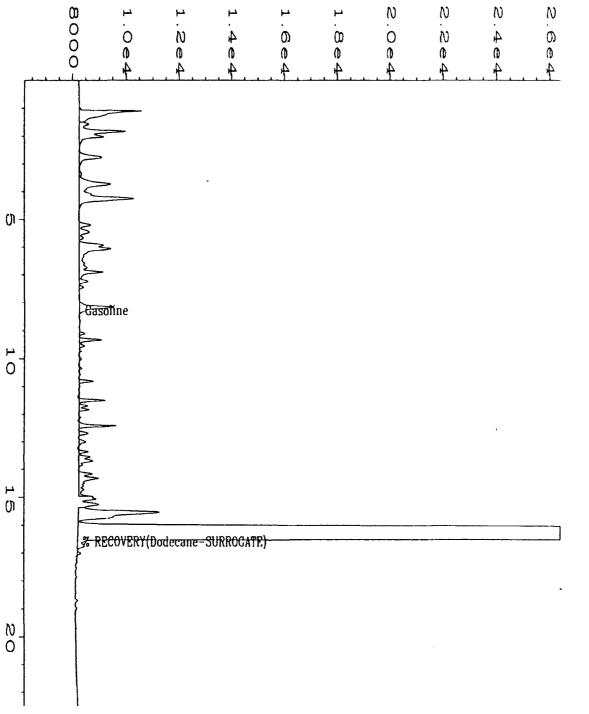
Multiplier : 1 ISTD Amount Sample Info : PROJECT # 95-0954 CLIENT # 24MP-2D WATER

TN.



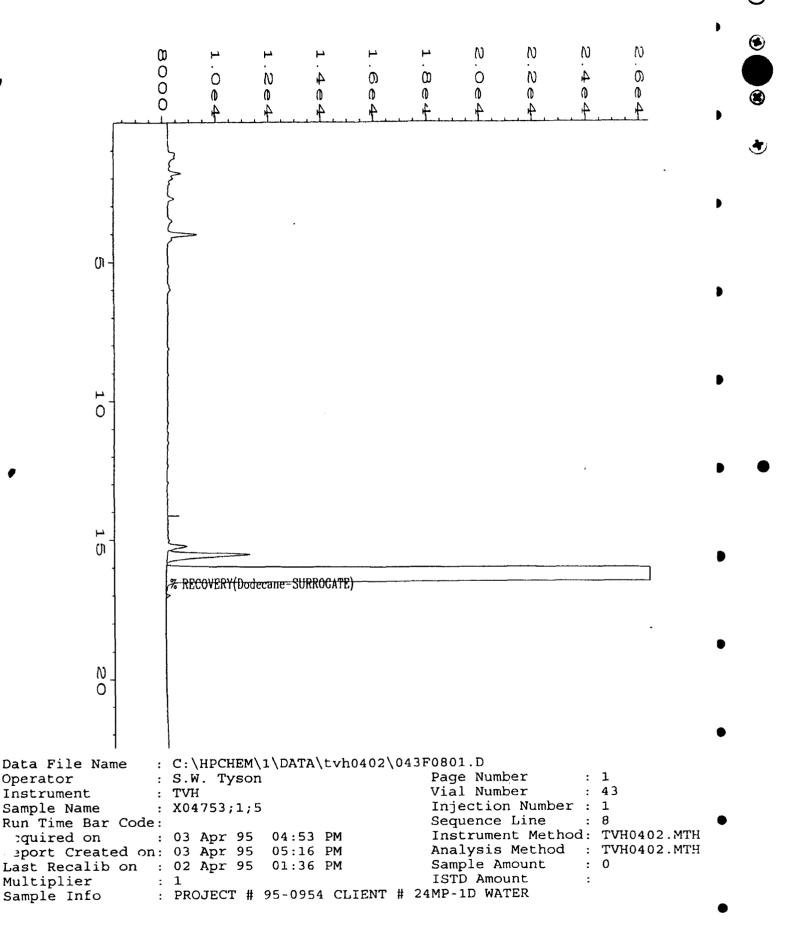
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Data File Name : C:\HPCHEM\1\DATA\tvh0402\046F0801.D Operator : S.W. Tyson Page Number : 1 Instrument Vial Number : TVH : 46 Sample Name : X04752;1;5 Injection Number: 1 Run Time Bar Code: Sequence Line 06:35 PM Acquired on : 03 Apr 95 Instrument Method: TVH040 17 06:58 PM Report Created on: 03 Apr 95 Analysis Method : TVH040 Γ. Last Recalib on : 02 Apr 95 Sample Amount 01:36 PM : 0 : 1 ISTD Amount Multiplier Sample Info : PROJECT # 95-0954 CLIENT # 24MP-2S WATER

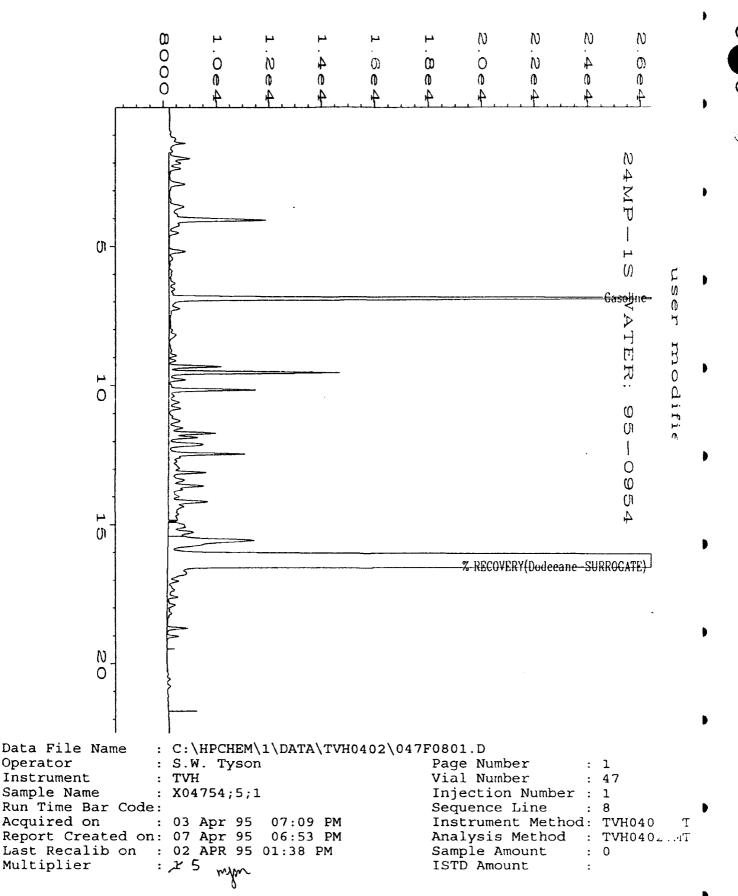
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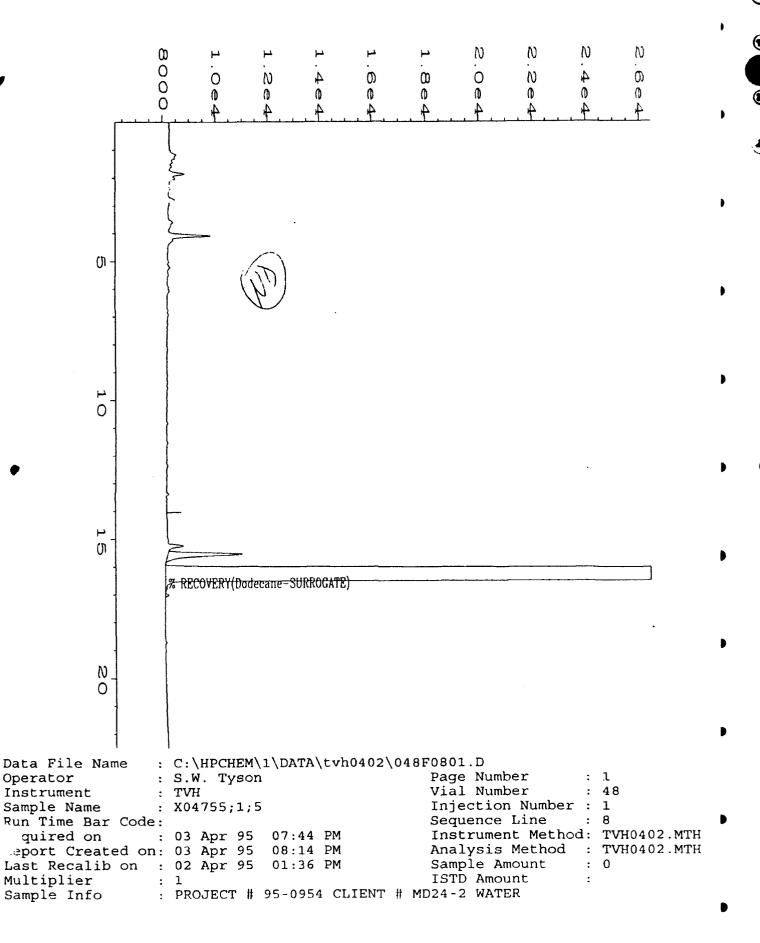


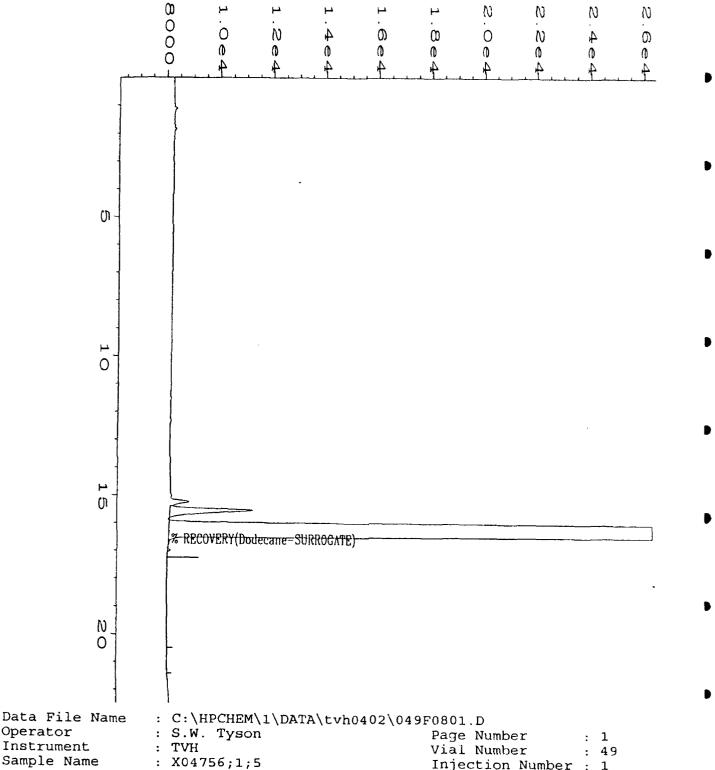
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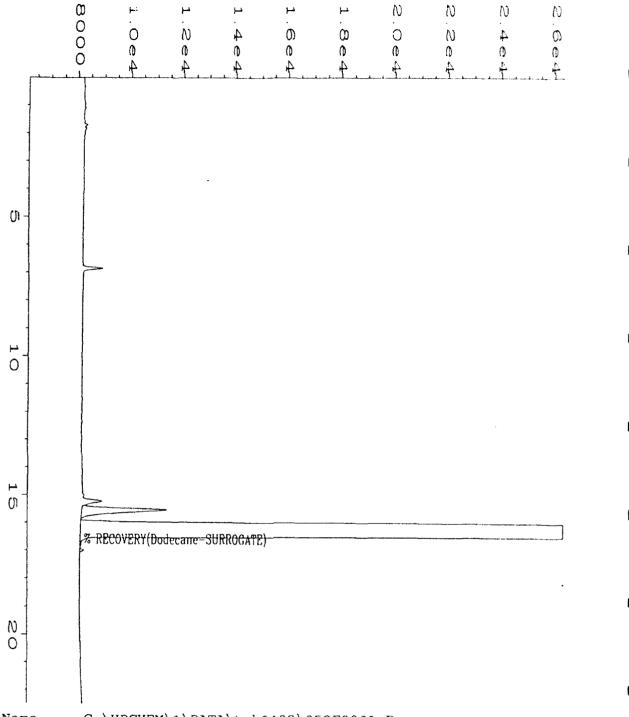






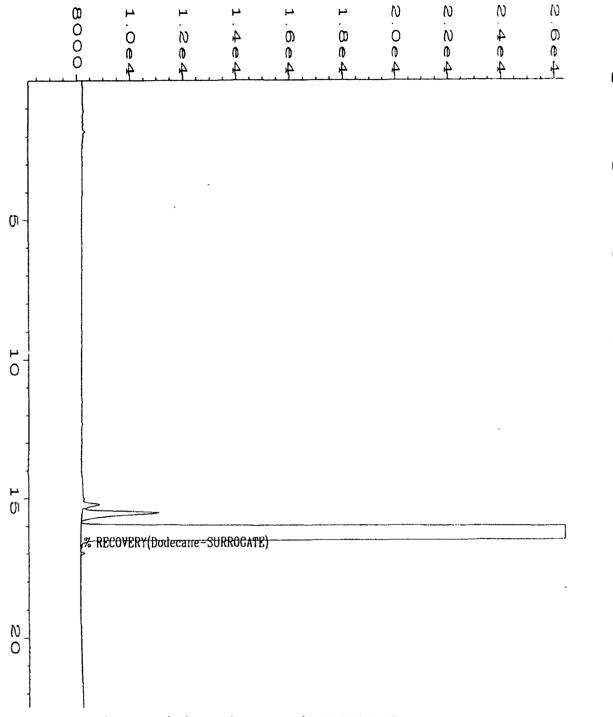
Sample Name Injection Number : 1 Run Time Bar Code: Sequence Line : 8 Acquired on : 03 Apr 95 08:18 PM Instrument Method: TVH040: Report Created on: 03 Apr 95 08:41 PM Analysis Method : TVH0402...II Last Recalib on : 02 Apr 95 01:36 PM Sample Amount : 0 Multiplier ISTD Amount Sample Info : PROJECT # 95-0954 CLIENT # MD24-5 WATER

Operator



```
Data File Name
                 : C:\HPCHEM\1\DATA\tvh0402\052F0801.D
Operator
                 : S.W. Tyson
                                                 Page Number
                                                                  : 1
Instrument
                                                 Vial Number
                 : TVH
                                                                  : 52
Sample Name
                 : X04757;1;5
                                                 Injection Number: 1
Run Time Bar Code:
                                                 Sequence Line
                                                                  : 8
 quired on
                 : 03 Apr 95
                              10:00 PM
                                                 Instrument Method: TVH0402.MTH
 sport Created on: 03 Apr 95
                              10:23 PM
                                                 Analysis Method
                                                                 : TVH0402.MTH
Last Recalib on : 02 Apr 95
                              01:36 PM
                                                 Sample Amount
                                                                  : 0
Multiplier
                 : 1
                                                 ISTD Amount
Sample Info
                 : PROJECT # 95-0954 CLIENT # 24MP-4S WATER
```

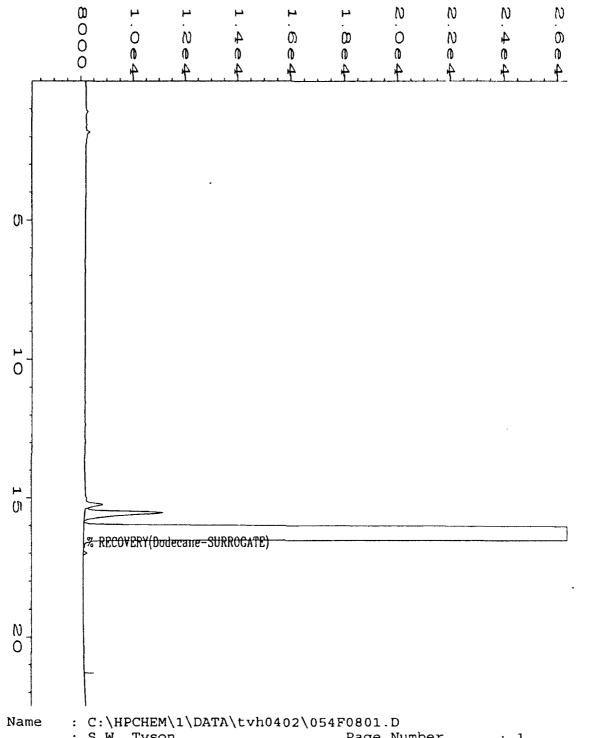
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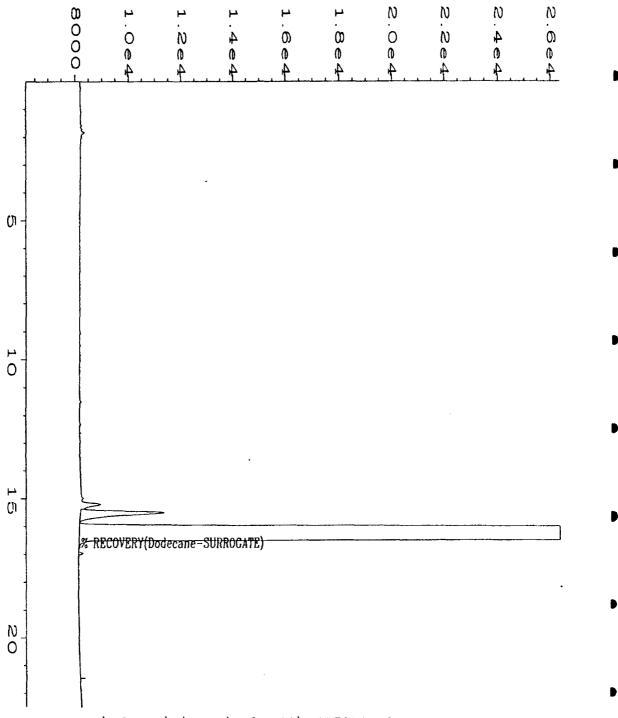
```
: C:\HPCHEM\1\DATA\tvh0402\053F0801.D
Data File Name
                                                 Page Number
Operator
                                                                   : 1
                 : S.W. Tyson
                                                 Vial Number
                                                                   : 53
Instrument
                 : TVH
                                                 Injection Number: 1
Sample Name
                 : X04758;1;5
                                                                  : 8
                                                 Sequence Line
Run Time Bar Code:
                                                 Instrument Method: TVH040
Acquired on
                 : 03 Apr 95
                              10:34 PM
                                                                             iT
Report Created on: 03 Apr 95
                              10:57 PM
                                                 Analysis Method : TVH040.
Last Recalib on : 02 Apr 95
                              01:36 PM
                                                 Sample Amount
                 : 1
                                                 ISTD Amount
Multiplier
                 : PROJECT # 95-0954 CLIENT # MD24-49 WATER
Sample Info
```

1/2

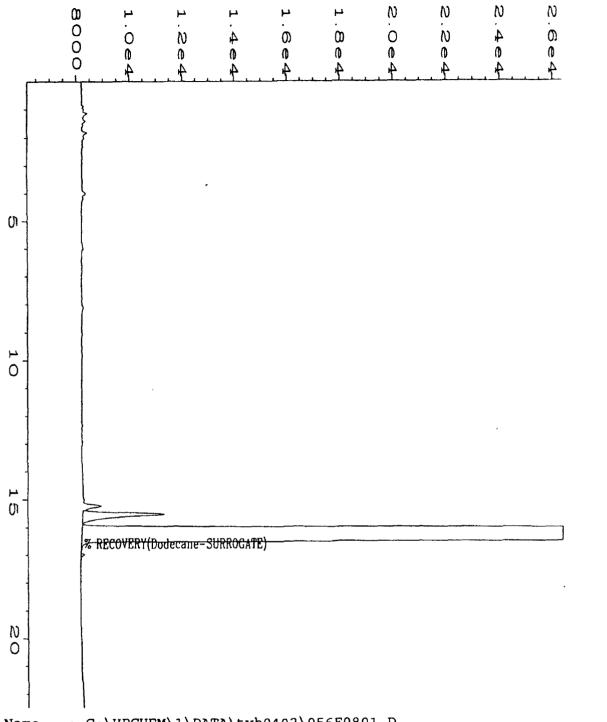


Data File Name Operator : S.W. Tyson Page Number Instrument Vial Number : TVH : 54 Sample Name : X04759;1;5 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 uired on : 03 Apr 95 11:08 PM Instrument Method: TVH0402.MTH port Created on: 03 Apr 95 11:31 PM Analysis Method : TVH0402.MTH Last Recalib on : 02 Apr 95 01:36 PM Sample Amount : 0 Multiplier ISTD Amount : 1

Sample Info : PROJECT # 95-0954 CLIENT # MD24-41 WATER

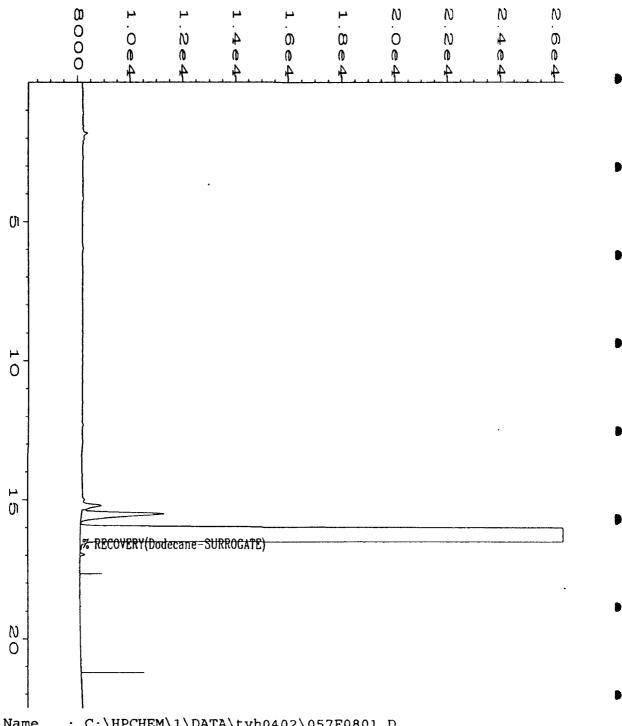


```
Data File Name
                 : C:\HPCHEM\1\DATA\tvh0402\055F0801.D
Operator
                 : S.W. Tyson
                                                Page Number
Instrument
                                                Vial Number
                 : TVI!
Sample Name
                                                Injection Number : 1
                 : X04760;1;5
Run Time Bar Code:
                                                Sequence Line
Acquired on
                 : 03 Apr 95
                              11:42 PM
                                                 Instrument Method: TVH040
Report Created on: 04 Apr 95
                              00:05 AM
                                                Analysis Method : TVH0402.MT
Last Recalib on : 02 Apr 95
                             01:36 PM
                                                Sample Amount
Multiplier
                                                 ISTD Amount
Sample Info
                 : PROJECT # 95-0954 CLIENT # MD24-3 WATER
```



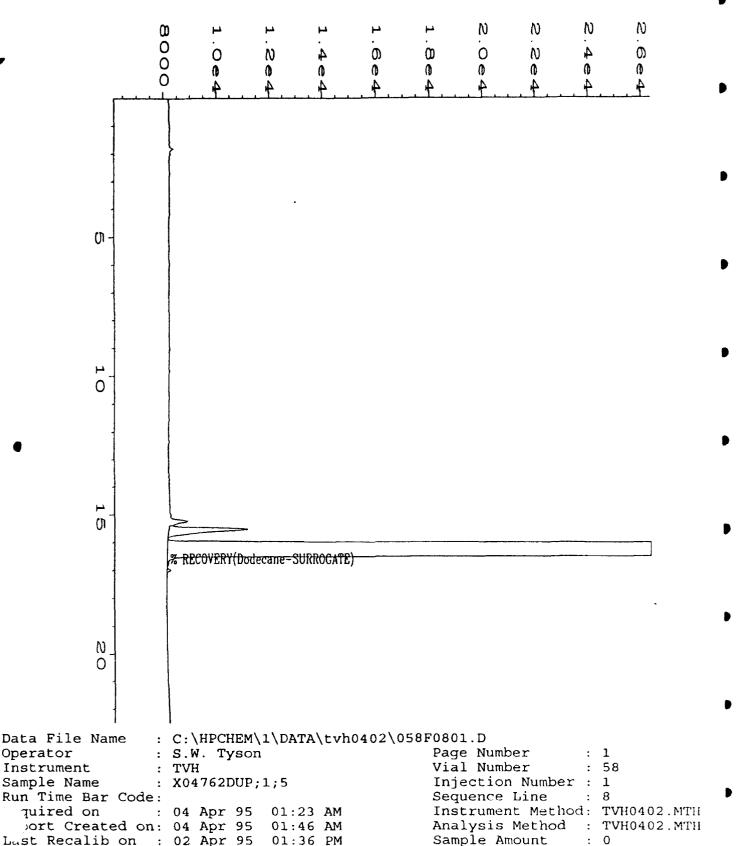
: C:\HPCHEM\1\DATA\tvh0402\056F0801.D Data File Name Page Number : 1 Operator : S.W. Tyson Vial Number : 56 Instrument : TVH Injection Number: 1 Sample Name : X04761;1;5 Sequence Line : 8 Run Time Bar Code: Instrument Method: TVH0402.MTH 00:16 AM quired on : 04 Apr 95 port Created on: 04 Apr 95 Analysis Method : TVH0402.MTH 00:39 AM Sample Amount Last Recalib on : 02 Apr 95 01:36 PM : 0

Multiplier : 1 ISTD Amount Sample Info : PROJECT # 95-0954 CLIENT # MD24-1 WATER

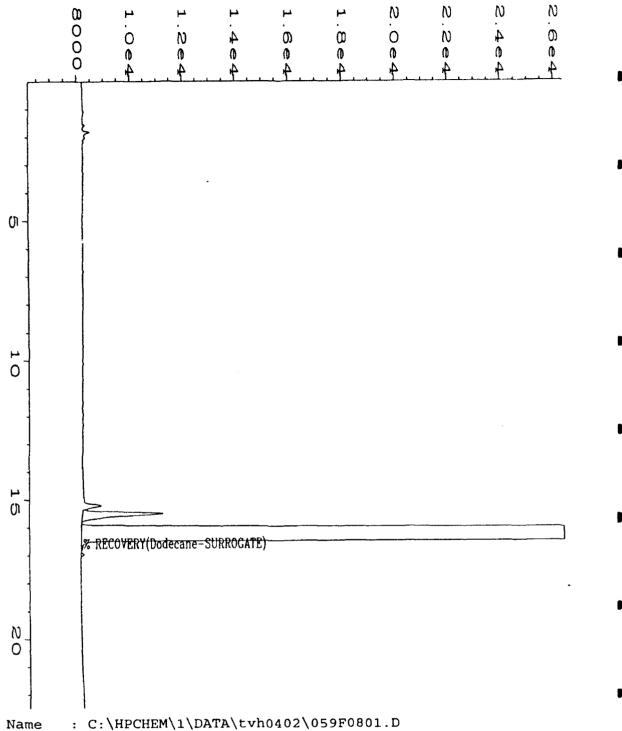


(4)

```
Data File Name
                 : C:\HPCHEM\1\DATA\tvh0402\057F0801.D
Operator
                 : S.W. Tyson
                                                Page Number
                                                Vial Number
Instrument
                 : TVH
                                                                  : 57
Sample Name
                 : X04762;1;5
                                                Injection Number: 1
Run Time Bar Code:
                                                Sequence Line
                                                                 : 8
Acquired on
                 : 04 Apr 95
                              00:49 AM
                                                Instrument Method: TVH040
Report Created on: 04 Apr 95
                              01:12 AM
                                                Analysis Method : TVH0402.AT
Last Recalib on : 02 Apr 95
                              01:36 PM
                                                Sample Amount
                                                                  : 0
Multiplier
                                                ISTD Amount
Sample Info
                 : PROJECT # 95-0954 CLIENT # 24MP-5D WATER
```



Last Recalib on : 02 Apr 95 01:36 PM Sample Amount
Multiplier : 1 ISTD Amount
Sample Info : PROJECT # 95-0954 CLIENT # 24MP-5D WATER



Data File Name Page Number Operator : S.W. Tyson Vial Number : 59 Instrument : TVH Injection Number: 1 Sample Name : X04770;1;5 Sequence Line : 8 Run Time Bar Code: Instrument Method: TVH040 : 04 Apr 95 01:57 AM Acquired on Report Created on: 04 Apr 95 02:20 AM Analysis Method : TVH040.... Last Recalib on : 02 Apr 95 01:36 PM Sample Amount : 0 ISTD Amount Multiplier : PROJECT # 95-0954 CLIENT # 24SS-2 SOIL Sample Info

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS040295

Matrix

: WATER

Date Prepared

: 4/2/95

Method Number

: 5030/MOD.8015

Date Analyzed
Sequence Number

: 4/2/95 : TVH8

Compound Name Theoretical Concentration mg/L LCS Concentration mg/ L LCS % Recovery

QC Limit % Recovery

Gasoline

2.00

2.18

109%

70%-130%

QUALIFIERS

U = TVH analyzed for but not detected.

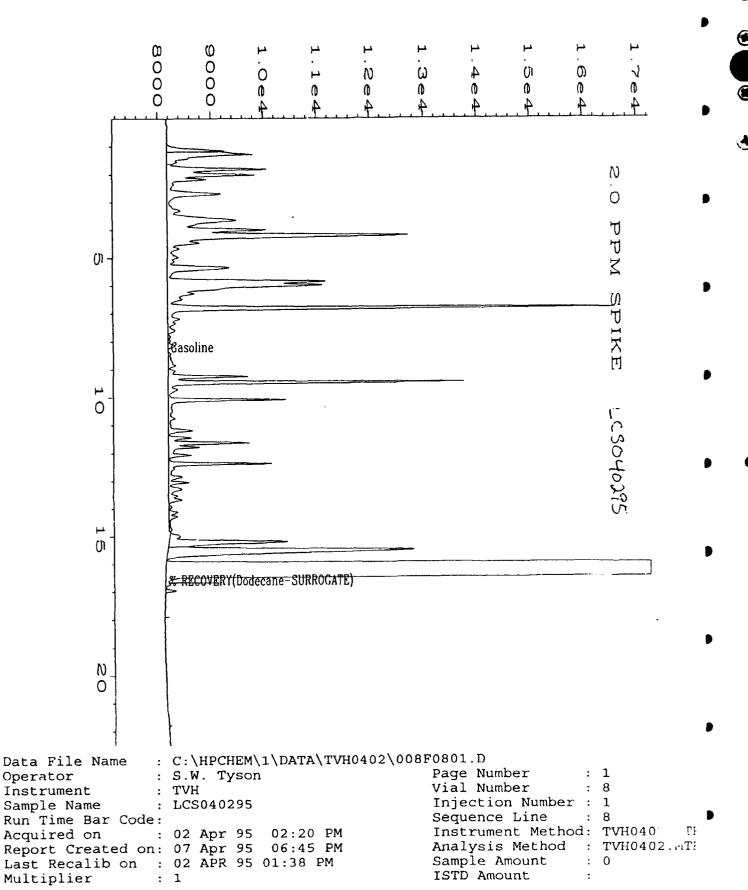
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approve



EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH) JET FUEL

Date Sampled

: 3/23/95

Client Project Number

: 722450.2102/MACDILL

Date Received

: 3/24/95

Lab Project Number

: 95-0954

Date Prepared

: 3/29/95

Matrix

; Soil

Date Analyzed

: 3/29/95 : 3/31/95-4/1/95

Method Number

: 3500/Mod. 8015

Evergreen Sample #	Client Sample #	OTP Surrogate % Recovery	TEH* JET FUEL mg/Kg	RL* mg/Kg
SB032995	SOIL METHOD BLANK	104%	U	10
X04770	24SS-2	112%	64#	14
X04770 DUP	24SS-2	111%	43#	14

QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

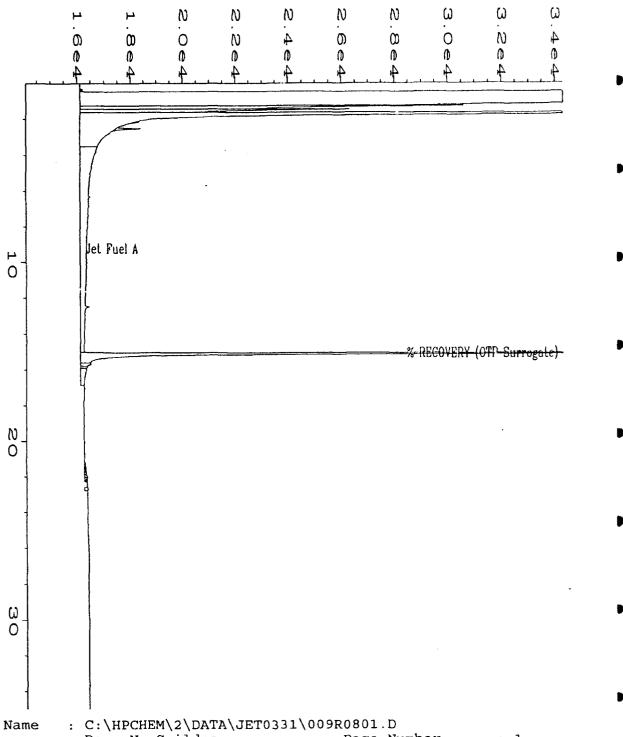
E = Extrapolated value.

RL = Reporting Limit

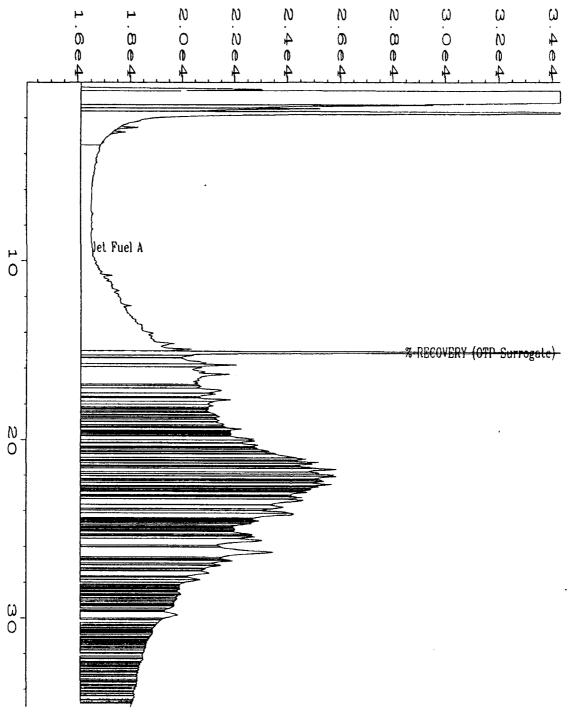
Approved

^{* =} Based on dry weight.

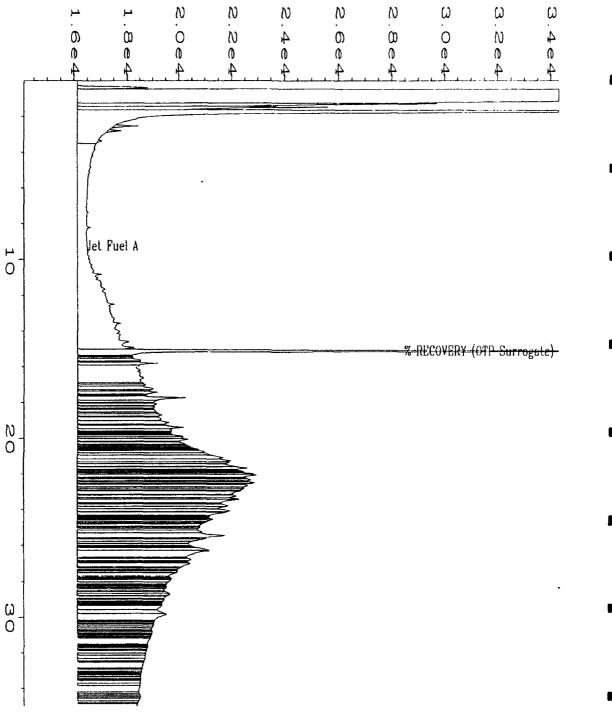
^{# =} Does not match jet fuel pattern.



Data File Name Page Number : Dawn N. Guildner Operator Vial Number : TEH Instrument : SB032995 Injection Number: 1 Sample Name Run Time Bar Code: Sequence Line : 8 : 31 Mar 95 Acquired on 05:50 PM Instrument Method: JET033 Analysis Method : JET0331 Report Created on: 31 Mar 95 06:26 PM Sample Amount ISTD Amount Last Recalib on : 31 Mar 95 02:18 PM : 0 Multiplier



Data File Name : C:\HPCHEM\2\DATA\JET0331\011R0801.D Operator : Dawn N. Guildner Page Number Instrument : TEH Vial Number : 11 Sample Name : X04770 DF=1, 30 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 quired on : 31 Mar 95 07:29 PM Instrument Method: JET0331.MTH ort Created on: 31 Mar 95 08:04 PM Analysis Method : JET0331.MTH Last Recalib on : 31 Mar 95 02:18 PM Sample Amount : 0 Multiplier ISTD Amount : 1 Sample Info : PROJECT # 95-0954 CLIENT # 24SS-2 SOIL



(4)

Data File Name :	C:\HPCHEM\2\DATA\JET0331\0141	R0801.D
	Dawn N. Guildner	Page Number : 1
Instrument :	TEH	Vial Number : 14
Sample Name :	X04770 DUP	Injection Number : 1
Run Time Bar Code:		Sequence Line : 8
	31 Mar 95 09:57 PM	Instrument Method: JET033 'T
Report Created on:	31 Mar 95 10:32 PM	Analysis Method : JET033. AT
	31 Mar 95 02:18 PM	Sample Amount : 0
Multiplier :	1	ISTD Amount :

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH) Laboratory Control Sample (LCS)

LCS Number

: LCS032995

Matrix

: SOIL

Date Prepared

: 3/29/95

Method Number

: 3500/MOD.8015

Date Analyzed

: 3/31/95

Sequence Number

: JET10

	Theoretical	LCS	LCS	
Compound	Concentration	Concentration	%	QC Limit
Name	mg/L	mg/ L	Recovery	% Recovery
JET FUEL	1000	1080	108%	70%-130%

QUALIFIERS

U = TEH analyzed for but not detected.

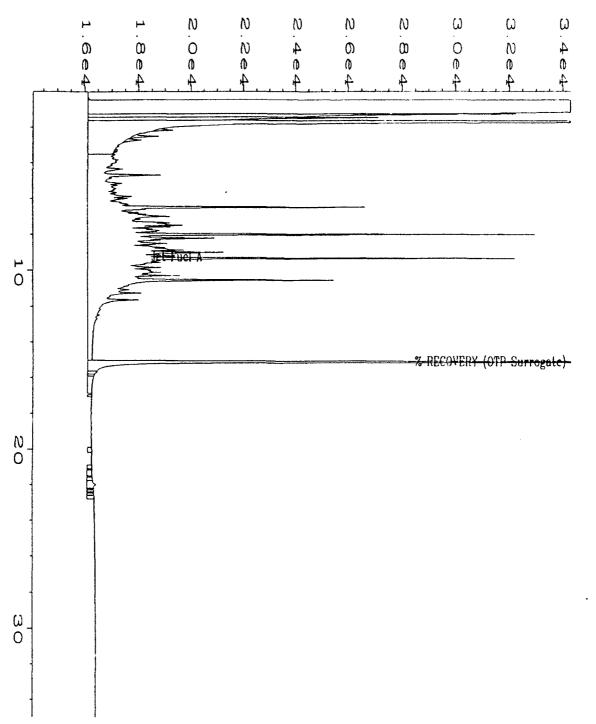
B = TEH found in blank as well as sample (blank data should be compared)

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



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Data File Name :	C:\HPCHEM\2\DATA\JET0331\010	R0801.D
Operator :	Dawn N. Guildner	Page Number : 1
Instrument :	TEH	Vial Number : 10
Sample Name :	LCS032995	Injection Number : 1
Run Time Bar Code:		Sequence Line : 8
Acquired on :	31 Mar 95 06:40 PM	Instrument Method: JET0331 TH
Report Created on:	31 Mar 95 07:15 PM	Analysis Method : JET0331 .H
Last Recalib on :	31 Mar 95 02:18 PM	Sample Amount : 0
Multiplier :	1	ISTD Amount :

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303)425-6021

Anions

7224	50.	21	020
Mag	n: 1	1	X DD

Client Project ID. : /MacDill AFB : 95-0954

Date Sampled : 3/22,23/95
Date Received : 3/24/95
Date Prepared : 3/24/95 Lab Project No. : EPA 300.0 Method Date Analyzed: 3/24/95 Matrix : Water

Detection Limit : 0.250 mg/L

<0.250

Evergreen Sample #	Client Sample ID	Chloride (mg/L)
X04750	MD24-8	6.55
X04750	MD24-8	6.59
Dup	Dup	
X04751	24MP-2D	291
X04752	24MP-2S	15.6
X04753	24MP-1D	454
X04754	24MP-1S	16.2
X04755	MD24-2	262
X04756	MD24-5	2.94
X04757	24MP-4S	30.6
X04758	MD24-4	320
X04759	MD24-41 and	326
X04760	MD24-3	207 ·
X04761	MD24-1	79.8
X04762	24MP-5D	354

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04762	24MP-5D Matrix Spike	10.0	354	46.0*	106 .
X04762	24MP-5D Matrix Spike Dup	10.0	354	46.0*	106
	MS/MSD RPD				0
X04750/X0475	0 dup RPD				0.609

^{*} Result based on a 10x dilution factor.

Method blank 3-24-95

Approved

0954tm 25

Anions

				722450.21	020
Client	Project	ID.	:	/MacDill	AFE

Date Sampled : 3/22,23/95 Client Project ID. : /MacDill A Date Received : 3/24/95 Lab Project No. : 95-0954 Date Prepared : 3/24/95 Method : EPA 300.0 Date Analyzed : 3/24/95 Matrix : Water

Detection Limit : 0.076 mg/L

		Decection Dimit
Evergreen	Client	
Sample #	Sample ID	Nitrite-N (mq/L)
X04750	MD24-8	<0.076
X04750	MD24-8	<0.076
Dup	Dup	
X04751	24MP-2D	<0.760*/
X04752	24MP-2S	<0.076
X04753	24MP-1D	<1.52*
X04754	24MP-1S	<0.076
X04755	MD24-2	<0.760*
X04756	MD24-5	<0.076
X04757	24MP-4S	<0.076
X04758	MD24-4	<0.760*
X04759	MD24-4 2014	<0.760*
X04760	MD24-3	<0.760*
X04761	MD24-1	<0.076
X04762	24MP-5D	<0.760*
Method blan	k 3-24-95	<0.076

Quality Assurance **

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% <u>Recovery</u>
X04762	24MP-5D Matrix Spike	10.0	<0.076	9.49	94.9
X04762	24MP-5D Matrix Spike Dup	10.0	<0.076	9.17	96.7
	MS/MSD RPD				1.88
X04750/X0475	0 dup RPD				NC

* = Increased detection limit due to matrix interference.

** = Quality assurance results reported as Nitrite (NO₂)

NC = Not calculated because sample and/or duplication results
 below detection limit.

~Approved

0954tm 25

Anions

							722450.21020
Date	Sampled	:	3/22,23/95	Client Project I	D.	:	/MacDill AFB
Date	Received	:	3/24/95	Lab Project No.		:	95-0954
Date	Prepared	:	3/24/95	Method		:	EPA 300.0

Date Analyzed : 3/24/95 Matrix : Water Detection Limit : 0.056 mg/L

		Decection Billie : 0.050 mg/ B
Evergreen	Client	
Sample #	Sample ID	Nitrate-N (mq/L)
X04750	MD24-8	<0.056
X04750	MD24-8	<0.056
Dup	Dup	
X04751	24MP-2D	<0.056
X04752	24MP-2S	<0.056
X04753	24MP-1D	<0.056
X04754	24MP-1S	<0.056
X04755	MD24-2	<0.056
X04756	MD24-5	<0.056
X04757	24MP-4S	<0.056
X04758	MD24-4	<0.056
X04759	MD24-41	<0.056
X04760	MD24-3	<0.056
X04761	MD24-1	<0.056
X04762	24MP-5D	<0.056

Method blank 3-24-95

<0.056

Quality Assurance **

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% <u>Recovery</u>
X04762	24MP-5D Matrix Spike	10.0	<0.250	9.00	90.0
X04762	24MP-5D Matrix Spike Dup	10.0	<0.250	9.01	90.1
	MS/MSD RPD				0.111
X04750/X0475	0 dup RPD				NC

** = Quality assurance results reported as Nitrate (NO_3) NC = Not calculated because sample and/or duplication results below detection limit.

Approved

0954tm.25

Anions

Date Sampled : 3/22,23/95 Client Project ID. : /MacDill AFB

Date Received: 3/24/95 Lab Project No. : 95-0954
Date Prepared: 3/24/95 Method : EPA 300.0
Date Analyzed: 3/24/95 Matrix : Water

Detection Limit : 0.250 mg/L

Evergreen Sample #	Client <u>Sample ID</u>	Sulfate (mg/L)
X04750 X04750	MD24-8	1.39
Dup	MD24-8 Dup	1.43
X04751	24MP-2D	10.5
X04752	24MP-2S	22.3
X04753	24MP-1D	2.00
X04754	24MP-1S	77.0
X04755	MD24-2	6.78
X04756	MD24-5	12.0
X04757	24MP-4S	23.5
X04758	MD24-4	11.7
X04759	MD24-41	11.7
X04760	MD24-3	18.4
X04761	MD24-1	7.16
X04762	24MP-5D	17.4
Method blan	k 3-24-95	<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result <u>(mg/L)</u>	% Recovery
X04762	24MP-5D Matrix Spike	10.0	17.4	26.9	95.3 -
X04762	24MP-5D Matrix Spike Dup	10.0	17.4	27.2	97.7
	MS/MSD RPD				2.49
X04750/X0475	0 dup RPD				2.84

Analyst

Approved

0954tm.25

Miscellaneous Analyses

722450.21020

Client Project ID. : /MacDill AFB Date Sampled : 3/22/95

Date Received: 3/24/95 Lab Project No. : 95-0954

Date Prepared: 3/28/95 Detection Limit : 5.00 mgCaCO₃/L : EPA 310.1 Method

Date Analyzed: 3/28/95

Total Alkalinity Client Evergreen (mgCaCO₃/L) Sample ID Matrix Sample # 206 X04750 MD24-8 Water X04750 Dup MD24-8 Dup Water 205

Method Blank (3/28/95) <5.00

Ouality Assurance

	True Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% Recovery
APG Minerals Reference Lot 13862	11.8	10.6	89.8
X04750/X04750 Dup RPD			0.486

Approved

0954tm.4

Total Organic Carbon

7?2450.21020

Date Sampled : 3/23/95 Date Received : 3/24/95 Client Project ID. : /MacDill AFB

Lab Project No. : 95-0954 Date Prepared: 3/31/95 Date Analyzed: 3/31/95 Method : EPA 415.1 Matrix : Water

Detection Limit : 1.00 mg C/L

Evergreen <u>Sample</u> #	Client Sample ID	mg C/Lites
X04756	MD24-5	5.52
X04760	MD24-3	34.6
95-1009		
X04936	56MP-3S	10.2
X04936 Dup	56MP-3S dup	10.2
Method Blank	(3/31/95)	<1.00

Quality Assurance

		Spike Amount (mg C/L)	Sample Result (mg C/L)	Spike Result (mg C/L)	% Recovery
<u>95-1009</u> X04936	Matrix spike 56MP-3S	10.0	10.2	20.6	103
X04936	Matrix spike Dup 56MP-3S	10.0	10.2	20.7	104
	MS/MSD RPD				1.15
X04936/X0	4936 Dup RPD				0.098

Approved

0954tm 10



CASE NARRATIVE

Evergreen Analytical Laboratory, (EAL) Project #: 95-0915

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On March 22, 1995, 13 water and 16 soil samples were received in good condition at Evergreen Analytical Laboratory. One trip blank was received with instructions to analyze for BTEX, TVH, Anions and Alkalinity. EAL was instructed by Leigh Benson of PES to analyze all trip blanks for BTEX only by telephone on March 22, 1995. Matrix spike (MS) samples were submitted for analysis with no associated sample. Upon questioning, John Hicks of PES was unable to determine which samples the MSs were associated with, therefore, they were handled as normal samples.

BTEX, Soil Matrix, Method SW8020

The soil samples were analyzed for BTEX within holding times. Samples 56MP-1(8-10), 56MP-2(13-15), 56SS-1(8-10) and Matrix Spike were analyzed at a dilution factor of 5 and 56MP-5(406) at DF = 1250 and 12500 due to levels of contamination. The reporting limits were adjusted accordingly.

Sample 56MP-6(4-6) exhibited low surrogate recovery. The sample was re-run for low surrogate confirmation with similar results. Method Blank MB032895 also exhibited low surrogate recovery, therefore, please refer to the Methanol Extraction Blank MEB032895.

BTEX, Water Matrix, Method 602

The water samples were analyzed within holding times at normal concentrations. No adjustment in reporting limits was necessary.

BTEX OC SAMPLES

The following Method Blanks exhibited total xylene contamination at or around the detection limit; MB032695, MEB032895, MEB032995 and MB032995. MEB033095 was contaminated with 1,2,3-trimethylbenzene. All samples associated with contaminated blanks are flagged "B".

Six Laboratory Control Samples (LCS) were associated with this project. All spikes and surrogates are within EAL control limits.

All duplicate sets of sample RPDs were within control limits.

Page Two
Case Narrative
Parsons Engineering Science
95-0915

Total Volatile Hydrocarbons, Soil and Water Matrix, Method 8015M All samples were analyzed for TVH within holding times. Sample 56MP-16(4-6) exhibited low surrogate recovery due to matrix interference. This was confirmed by a second analysis.

There were no other quality control anomalies to report.

Total Extractable Hydrocarbons, Soil Matrix, Method 8015M There were no quality control anomalies to report.

General Chemistry

There were no quality control anomalies to report.

Total Organic Carbon (TOC) in Soil

TOC was analyzed by Huffman Laboratories in Golden, Colorado by analyzing for total carbon (TC) and inorganic (carbonate) carbon (CC). The difference is then calculated and reported as TOC. The reports from Huffman are included.

Patricia A. McClellan, Project Manager

	Project # <u>95-0915</u>
Date(s) Sampled: 03/17,20,21/95 COC	Date Due: 03/27/95-UST
Date Received: 03/22/95 1015	$\frac{04/05/95-OTHERS}{1000000000000000000000000000000000000$
	3/31,4/3,4-BTEX,TVH,TEH,4/3,4-ALK.
CA it Project I.D. 722450.21020/MAC DI	ILL AFB Rush STANDARD
Client: Parsons Engineering Science, Inc	shipping Charges N/A
Address: 1700 Broadway Suite 900	E.A. Cooler # 422,412
Denver, CO 80290	Airbill # FEDEX 3518630791
Contact: TODD WIEDEMEIR	Custody Seal Intact? Y
Client P.O. 722450.21020	Cooler X Bottles Y
· · · · · · · · · · · · · · · · · · ·	Sample Tags Present? Y
Phone #831-8100 Fax #831-8208	Sample Tags Listed? Y Sample(s) Sealed? Y
Special Instructions SDING SWIDDOWN	- · · · · · · · · · · · · · · · · · · ·
Special Instructions SPLUS CHLOROBENZENE	
DRY WEIGHT BASIS. ANALYZE AN MS/MSD AN	D LAB DUPLICATE FOR THIS CLIENT.
Lab Client	
ID # ID# Analys	s Mtx Btl Loc
X04546A/B 24MP-5S	02 W 40V 2
X04547A/B 24MP-3S SBTEX 6	502 W 40V 2
XC 48A/B 24MP-3D SBTEX 6	02 W 40V 2
X0-549A/B 24MP-8D	02 W 40V 2
X04550A/B 24MP-8S	02 W 40V 2
X04551A/B MD24-9	02 W 40V 2
X04552A/B MD24-10A SBTEX 6	02 W 40V 2
X04553A/B MD24-10	02 W 40V 2
X04554A/B MD24-7 SBTEX 6	
AU4334A/B MD24-/ SBIEX 6	02 <u>W 40V 2</u>
X04555A/B MD24-7 (DUP) \$BTEX 6	
	02 W 40V 2
X04555A/B MD24-7(DUP)	02 W 40V 2
X04555A/B MD24-7 (DUP) \$BTEX 6 X04559 RINSEATE BLANK \$BTEX 6 X04565 MATRIX SPIKE \$BTEX 8	02 W 40V 2
X04555A/B MD24-7 (DUP) \$BTEX 6 X04559 RINSEATE BLANK \$BTEX 6 X04565 MATRIX SPIKE \$BTEX 8 X04557 56MP-1(4-6) \$BTEX 8	02 W 40V 2 02 W 40V 2 020 (% MOISTURE) S 4WM 2
X04555A/B MD24-7 (DUP) \$BTEX 6 X04559 RINSEATE BLANK \$BTEX 6 X04565 MATRIX SPIKE \$BTEX 8 X04557 56MP-1(4-6) \$BTEX 8 X04558 56MP-1(8-10) \$BTEX 8	02 W 40V 2 02 W 40V 2 020 (% MOISTURE) S 4WM 2 020,TVH S 4WM 2
X04555A/B MD24-7 (DUP) \$BTEX 6 X04559 RINSEATE BLANK \$BTEX 6 X04565 MATRIX SPIKE \$BTEX 8 X04557 56MP-1(4-6) \$BTEX 8 X04558 56MP-1(8-10) \$BTEX 8 X04560 56MP-2(6-8) \$BTEX 8	02 W 40V 2 02 W 40V 2 020 (* MOISTURE) S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2
X04555A/B MD24-7 (DUP) \$BTEX 6 X04559 RINSEATE BLANK \$BTEX 6 X04565 MATRIX SPIKE \$BTEX 8 X04557 56MP-1(4-6) \$BTEX 8 X04558 56MP-1(8-10) \$BTEX 8 X04560 56MP-2(6-8) \$BTEX 8 X04561 56MP-2(13-15) \$BTEX 8	02 W 40V 2 02 W 40V 2 020 (% MOISTURE) S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2
X04555A/B MD24-7 (DUP) \$BTEX 6 X04559 RINSEATE BLANK \$BTEX 6 X04565 MATRIX SPIKE \$BTEX 8 X04557 56MP-1(4-6) \$BTEX 8 X04558 56MP-1(8-10) \$BTEX 8 X04560 56MP-2(6-8) \$BTEX 8 X04561 56MP-2(13-15) \$BTEX 8	W 40V 2 02 W 40V 2 020 (% MOISTURE) S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2 020,TVH S 4WM 2

Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc
X04566	56MP-5(4-6)	SBTEX 8020, TVH	s	4 WM	2
X04567	56MP-5(8-11)	\$ BTEX 8020, TVH(%	MOISTURE)S	2WM	2
X04568	56MP-6(4-6)	\$BTEX 8020,TVH	s	4WM	2
X04569	56MP-6(10-11)	\$BTEX 8020, TVH(%	MOISTURE)S	TUB	E 2
X04571	MATRIX SPIKE	SBTEX 8020, TVH	s	2WM	2
X04572	56MP-16(4-6)	SBTEX 8020, TVH	S	4WM	2
X04556A/B	TRIP BLANK	\$BTEX 602	W	40V	22
X04573A	TRIP BLANK	SBTEX 602	W	40V	2
X04546C/D	24MP-5S	TVH	W	40V	2
X04547C/D	24MP-3S	TVH	W	40V	2
X04548C/D	24MP-3D	TVH	W	40V	2
X04549C/D	24MP-8D	TVH	W	40V	2
X04550C/D	24MP-8S	TVH	W	40V	2
X04551C/D	MD24-9	TVH	W	40V	2
X04552C/D	MD24-10A	TVH	W	40V_	2
X04553C/D	MD24-10	TVH	W	40V	2
X04554C/D	MD24-7	TVH	W	40V	2
X04555C/D	MD24-7 (DUP)	TVH	w_	40V_	2
X04557	56MP-1(4-6)	ТЕН	S	2WM	CL3
X04558	56MP-1(8-10)	ТЕН	s	2WM	CL3
X04560	56MP-2(6-8)	TEH	S	2WM	CL3
X04561	56MP-2(13-15)	ТЕН	S	2WM	CL3
X04562	56MP-3(4-6)	ТЕН	s	2WM	CL3
X04566	56MP-5(4-6)	TEH	S	2WM	CL3
X04568	56MP-6(4-6)	ТЕН	S	2WM	CL3
X04571	MATRIX SPIKE	ТЕН	S	2WM	CL3
X04572	56MP-16(4-6)	ТЕН	S	2WM	CL3
X04557	56MP-1(4-6)	% MOISTURE	S	2WM	CL3
X04558	56MP-1(8-10)	% MOISTURE	S	2WM	CL3
X04560	56MP-2(6-8)	% MOISTURE	S	2WM	CL3
X04561	56MP-2(13-15)	% MOISTURE	s	2WM	CL3
X04562	56MP-3(4-6)	% MOISTURE	S	2WM	CL3
X04563	55MP-3(11-13)	% MOISTURE	S	2WM	CL3
X04566	56MP-5(4-6)	% MOISTURE	S	2WM_	CL3
X04568	56MP-6(4-6)	% MOISTURE	S	2WM_	CL3
X04571	MATRIX SPIKE	% MOISTURE	S	2WM	CL3
X04572	56MP-16(4-6)	% MOISTURE	S	2WM	CL3
			of 3 Pages		

Page 2 of 3 Pages Project # 95-0915

R=Sample to be returned

Lab ID # `	Client ID#	Analysis	Mtx	Btl Loc
X04546E	24MP-5S	ALKALINITY .	W	250P CL3
47E	24MP-3S	ALKALINITY	W	250P CL3
X04548E	24MP-3D	ALKALINITY	W	250P CL3
X04549E	24MP-8D	ALKALINITY	W	250P CL3
X04550E	24MP-8S	ALKALINITY	W	250P CL3
X04552E	MD24-10A	ALKALINITY	W	250P CL3
X04553E	MD24-10	ALKALINITY	W	250P CL3
X04546F	24MP-5S	C1-, SO,, NO,, NO,	W	125P CL3
X04547F	24MP-3S	C1, SO, NO, NO	W	125P CL3
X04548F	24MP-3D	C1, SO, NO, NO	W	125P CL3
X04549F	24MP-8D	C1 ⁻ , SO ₄ , NO ₂ , NO ₃	W	125P CL3
X04550F	24MP-8S	Cl ⁻ , SO ₄ , NO ₂ , NO ₃	W	125P CL3
X04551E	24MP-9	C1 ⁻ , SO ₄ , NO ₂ , NO ₃	W	125P CL3
X04552F	MD24-10A	C1, SO ₄ , NO ₂ , NO ₃	W	125P CL3
X04553F	MD24-10	Cl ⁻ , SO ₄ , NO ₂ , NO ₃	W	125P CL3
X04554E	MD24-7	C1 ⁻ , SO ₄ , NO ₂ , NO ₃	W	125P CL3
X04555E	MD24-7 (DUP)	C1, SO4, NO2, NO3	W	125P CL3
X04562	56MP-3(4-6)	тос	S	2WM OUT
<u>y</u> •68	56MP-6(4-6)	TOC	S	2WM OUT
X04570	5655-2 (4-6)	TOC (% MOISTURE)	S	2WM OUT
X04574	56SS-12(4-6)	TOC (% MOISTURE)	S	2WM OUT

Page 3 of 3 Pages
Project # 95-0915

R=Sample to be returned

٧, Wiedemere Do not write in shaded area EAL Sample No. Page Lot. EAL use only 24.45 25 29 S 54 イン 49 D Container Size XO404 Custodian Project #_ Location 2 expedited turnaround subject to additional fee PO EAL 21020 Anions TURNAROUND REQUIRED. 72245c CLIENT CONTACT (print) Alka Cilly EAL. QUOTE #_ PROJECT LD. 56, EON 72 3) X dSC1 X × × × ٧. X Ł भार^ल **ANALYSIS REQUESTED** Total Metals-DW / NPDES / SW8 (circle & list metals below)

Dissolved Metals - DW / SW846 (circle & list metals below) X てい 4036 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 TEPH 8015mod. (Diesel) FAX RESULTS Y 1/N) JOF (Gailloza) .bom2108 HAVT Evergreen Analytical Inc. (Gicie) 1.514 esses 6.13.1 (Gicie) × × X ኦ X 21.19 BTEX 8020/602 (circle)/MTBE (circle) 乂 × × РСВ Ѕ_{сгөөл} Herbicides 8150/515 (circle) PesyPCBs 8080/608/508 (circle) . . , Pesticides 8080/608 (circle) - F.31-810B 8NA 8270/625 (circle) ⋘ IOE VOA 8260/624/524.2 (circle) Di. slsteM\dreH\teqq\aNB\AOV SUTTONCE 50,75 900 MATRIX egbul2 \ liO 303 co . . . f bilos / lios 7 7 ¥ γ. 7 ٧ بز ٧ ZIP HOLYO FAX * ENGINEGRING 2 イント・プラウ No. of Containers S Ś Ś 05:30 B.co. 2010A7 TIME 13:55 10:05 00:01 54:11 15,00 -54:01 12:20 11:25 54:11 -831-8100 JESSELY 36/20/6 SAMPLED 3/20 195 3/50/65 3/20 /45 xword 77 3/10/65 34/12/8 3/20/95 3/21/45 3/21/95 ر ا 3/21/05 DATE Please PRINT all information: 1/20,20 STATE Evergreen Analytical Cooler No. for som 5 • (00) 2 **IDENTIFICATION** 303 1700 MARK 24mp-30 CITY DENVER 08-dwh 24 MP-85 V01-12.04 SAMPLE 24MP-55 Sampler Name: MD24-10 24 MP- 35 Relinquished by: (P-45011 Cooler Received Instructions: -600W ١ (signature)__ MO24. COMPANY ADDRESS PHONE (print) 9 Ξ

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Evergreen. 8-78i di 30.5 300 ENCINEERING SCIENCE 5-41.17 FAX # obras ZIP Bronoway CITY DEMONS STATE CA 302-831-8100 (my soms 0061 COMPANY ADDRESS PHONE*

Sampler Name:

40.9 . ounglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400

Autical Inc.

EAL, QUOTE # 222 456 - 21016 P.O. CLIENT CONTACT (print) Tord PROJECT I D. MA C.

L. . & deineler

AFB

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TURNAROUND REQUIRED.

expedited turnaround subject to additional fee

FAX RESULTS Y / (N)

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			(circle)	908	Pesivones			 		 _	_	_	_			:3	-
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Treed	VESSE 47	477	L	ation:	DATE SAMPLED	Brind Brind										588	
		al Cooler No	Please PRINT	all information:		BLANK								, 2, 1		Pleinez	
Leisessing Milan	(print) MA 2-4	Evergreen Analytical Cooler No	Plea		CLIENT SAMPLE IDENTIFICATION	TRIP E								H	.00:	Instructions:	

Date/Time Received by. (Signature) Rulinquished by: (Signature) Man Vernan

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Date 2 WM AWIT P.O. # 7224 50. 2102 54 41 DV Container Size tu locs Do not write in shaded area EAL Sample No. Location 2, (L) EAL use only 63 70/ 0 右方 0 Custodian Received by (Signature) expedited turnaround subject to additional fee TURNAROUND REQUIRED. CLIENT CONTACT (print)_ Date/Time PROJECT I.D. EAL. QUOTE # Moisture × × X × JOL ANALYSIS REQUESTED X Dissolved Metals - DW / SW846 (circle & list metals below) Total Metals-DW / NPDES / SWB46 Relinquished by: (Signature) TEPH 8015mod. (Diesal) 4036 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6654 (800) 845-7400 × to K ¥ TVPH 8015mod. (Gasoline) Z X 火 × Evergreen Analytical Inc. / > TRPH 418, 1/Oil & Grease 413,7 (circle) BLEX 8050/602 (circle)/MTBE (circle) Y × × × Y FAX RESULT\$ γ PCB Screen Herbicides 8150/515 (circle) Pest/PCBs 8080/608/508 (circle) Pesticides 8080/608 (circle) BNA 8270/625 (circle) VOA 8260/624/524.2 (circle) TCLP VOA/BNA/Pest/Herb/Metals (Reseived by: (Signature) MATRIX × bilos / lios Donus (Gircia) 80210 B 10 FAX . 3 No. of Containers 3 14:51 230 TIME 5000 0818 3-17-55/1110 122 2018 3-7-55 2-17-95 DATE SAMPLED 3-2-5 3-17-45 347-95 3-17-91 8++-45 415 Please PRINT 377 25 all information: Evergreen Analytical Cooler No. (Sygnature) といろと S6MP-1(8-10) Kinsect Blent 56mp-1(4-6) 56 MP-3(6-2) DENTIFICATION 56mp-3111-13 56mp-364-6 01-8) 1-5595 sak! SAMPLE Instructions: CITY 'I DIMINE Sampler Name; Cooler Received_ H いかい ADDRESS COMPANY (signature) PHONE (print)

Container Size スピア イザ PO# 7221 Fe. 21-22 EAL use only on write in shaded area 2 lest of 3 EAL Sample No. E 99 0 2 2 Þ 2 ナラト CLIENT CONTACT (print) JOhn Hecis Custodian_ ocation 2, Project # expedited turnaround subject to additional fee 브 र्ड MACD.11 to them TURNAROUND REQUIRED PROJECT I.D. EAL. QUOTE # Wei Store する * ¥ × ANALYSIS REQUESTED 10C Dissolved Metals - DW / SW846 (circle & iisi metals below) ہذ 4 × 673 Comp te teul Total Metals-DW / WPDES (circle & list metals below) TEPH 8015mod. (Diesel) Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 ہز TVPH 8015mod. (Gasoline) ¥ z ilytical Inc. TAPH 418.1/Oil & Grease 413.1 (circle) × K Y X × Cartainer K 4036 Youngfield St. BTEX 8020/602 (circle)/MTBE (circle) FAX RESULTS Samples Ł X × × ፞፞፞፞፞፞ PCB Screen d Herbicides 8150/515 (circle) Pest/PCBs 8080/608/508 (circle) ¥ 200 Evergreen Pesticides 808/608 (circle) BNA 8270/625 (circle) ⋘ ファマ VOA 8260/624/524.2 (circle) (9-41) had (300 years) sisteM\dreH\tzeq\aNB\AOV Some w SCMP-G(10-11) MATRIX egbul2 \ iiO × 7 X × X bilo2 \ lio2 (elOrio Water-Dnnking/Discharge/Ground 06000 No. of Containers G 7 <u>त</u> TIME (830 1230 1700 1200 3 35 3-20-15/1900 Simp-6 Borduse 3-20-45 3-20-45 3-50-5 SAMPLED 3-2045 3-20-8 アンドイア 3-20-9 \Im DATE Evergreen Analytical Cooler No. 7/2 aun STATE (C) Please PRIN all information: BTB's 83 (-81W COMPANY DOUS UMS Sawer SI MO - G(1041) (3-1)21-スン 56mP-16 (4-4) 56 AP- 26 4-4) 56 MP-5 (9-11) 56 MP-6(42) IDENTIFICATION 56MRS14-6 00: % 4 CITY JEALDEN Madryo Spike SAMPLE Sampler Names CLIENT Trin Blank Cooler Received moter Instructions: ADDRESS (print) PHONE# (signature) 불

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30/25/8 hes Controv Date/Time Received by: (Signature) 13/26

(Signature)

Date/Time | Relinquished by: (Signature)

Date/Time | Ruceived by, (Signature)

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everyreen Analytical Sample	-		
2	Shipped	d Via: Fed (Airbill # i	f applicable)
client: Farsons Encineering	,	/ALDIII • 1	r appricable)
Client Project ID(s): 722450,210	<u> </u>		
EAL Project #(s):95-0915	EAL	Cooler(s):	N
Cooler# 422			
Ice packs Y N Y N Y	N	Y N	у и
Temperature & CDA			
		¥ _	n n/A
<pre>1. Custody seal(s) present: Seals on cooler intact Seals on bottle intact</pre>			
2. Chain of Custody present:			
 Containers broken or leaking: (Comment on COC if Y) 			
4. Containers labeled:			
5. COC agrees w/ bottles received: (Comment on COC if N)			
<pre>6. COC agrees w/ labels: (Comment on COC if N)</pre>			
7. Headspace in VOA vials-waters only (comment on COC if Y)			
8. VOA samples preserved:			
9. pH measured on metals, cyanide or ph List discrepancies			
10. Metal samples present:		·	
Total, Dissolved D or PD to be filtered:			
T,TR,D,PD to be Preserved:			
11. Short holding times: Specify parameters			
12. Multi-phase sample(s) present:			
13. COC signed w/ date/time:			
Comments:			
(Additional comments on back) Custodian Signature/Date:	Ceni	nov 3/22	195

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C1	ient Proj	ect ID(s):	- 11/2	(II)	72	2248	50.	210	20			
		: #(s): <u>95−</u>							ler(s)	:	Y	N
	oler#	412					<u>.</u> .					
Ice	e packs	N Y	Y	N	Y	И		Y	N	Y	N	
Tem	perature t	= cold	····				_					-
									Y		N	N/A
1.	Seals	seal(s) pro on cooler i on bottle i	ntact						\leq			
2.	Chain of	Custody pr	esent	:								
3.		rs broken o t on COC if		cing:						_		
4.	Containe	rs labeled:						****				
5.		es w/ bottl t on COC if		eived:								
6.		es w/ label t on COC if							_		<u> </u>	_
7.		e in VOA vi ment on CO			nly				·			
8.	VOA samp]	les preserv	ed:							<i>-</i>		***************************************
9.	List dis	red on meta screpancies provided								у.	paintinininininininininininininininininin	
10.	Metal sa	mples pres	ent:					-		-		
	Total	, Diss	olved									
		to be filte										
	T,TR,D,P	D to be Pro	eserve	d:								
11.		lding times parameters										_
12.	Multi-ph	ase sample	(s) pro	esent:								mapiles
13.	COC sign	ed w/ date/	time:					·				
Comm	ments:											

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(8)

71 Date/Time Wedeinerse in shaded area EAL Sample No. Page Lot EAL use only Do not write 24×5 Container Size Project #__ Custodian P.O.# expedited turnaround subject to additional fee Location 30 EAL Date/Time Received by: (Signature) 0,11 21020 Anions TURNAROUND REQUIRED. 772450. Muc CLIENT CONTACT (print)_ AIRallish, EAL. QUOTE # F.77 PROJECT I.D. EDN 705 ζ-2) X X X × × × ኦ X AIKa ANALYSIS REQUESTED Total Metals-DW / WPDES / SW8. (circle & list metals below) Dissolved Metals - DW / SW846 (circle & list metals below) × V. エント nquished by: (Signature) $F_{\mathcal{E}|\mathcal{D}} = \mathbb{E} \times$ Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 TEPH 8015mod. (Diesel) FAX RESULTS Y / A) TVPH 8015mod. (Gasoline) Evergreen Analytical Inc. BTEXI (circle) I STA SEBSE & IOIT & HART X X 4036 Youngfield St. BTEX 8020/602 (circle)/MTBE (circle) × × PCB Screen Herbicides 8150/515 (circle) Pest/PCBs 8080/608/508 (circle) لوددر Date/Tirr Pesticides 8080/608 (circle) 831-8208 BNA 8270/625 (circle) CE ~((VOA 8260/624/524.2 (circle) B1. VOA/BNA/Pest/Herb/Metals ENGINEERING SCEENCE Suite 900 ţ Date/Time Received by: (Signature) <u>بر</u> ج 00114 MATRIX egbut2 \ IiO 303 Soil / Solid * 7 ¥ ٧ × ٧ ZIP BUZGO Water-Drinking/Discharge/Cround FAX # Q A ひよし ノの ら No. of Containers ० এ Q Ø b BICOADUNAT 08:30 00:01 10:45 54:11 13:55 TIME 17:20 0.50 50:01 54:11 11:25 8/00 JESSELY SAMPLED m Piss 56/0C/E 3/20/95 3/50/62 3/10/6 56/12/8 42 3/50/65 3/21/45 3/20 /4C 3/21/95 3/11/65 ٥ DATE Please PRIN all information: ~ "Leade STATE ò Evergreen Analytical Cooler No. (wsims ·ture) 000 77 IDENTIFICATION 303 1700 MHRK CITY DENVER A01-420A 24 MP-80 24 MP-85 SAMPLE 01-24MP-55 Sampler Name: CLIENT 6-420W Relinquished by: Cooler Received ~ Instructions: -420W - JW ho 241117 COMPANY 1011124 400K ADDRESS_ (signature)__ PHONE# (print)_ 9 Ξ

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217917 om. 702 Do not write in shaded area EAL Sample No. EAL use only Benson 3/22/15 1,C, &d AFB d.12 75 Container Size Project #_ Custodian expedited turnaround subject to additional fee EAL. QUOTE # 722, 45 C -- 210.20 P.O.# Location 0 ~ Todd TURNAROUND REQUIRED. Lews 1 CLIENT CONTACT (print) PROJECT ID. 114 C Per 7.05 Alkalin ANALYSIS REQUESTED Total Metals-DW / NPDES / SW8 (circle & list metals below)
Dissolved Metals - DW / SW846 (circle & list metals below) On BTEX TEPH 8015mod. (Diesel) Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 FAX RESULTS Y / (N.) (Gasoline) (Gasoline) alytical Inc. TAPH 418.1/Oil & Grease 413.1 (circle) क्र BTEX 8020/602 (circle)/MTBE (circle) 4036 Youngfield St. thaly ze trio blank РСВ Ѕ^{сгеел} Herbicides 8150/515 (circle) PesyPCBs 8080/608/508 (circle) Evergreen Pesticides 808/608 (circle) 30781 BNA 8270/625 (circle) **~** VOA 8260/624/524.2 (circle) SIELP VOA/BNA/PesVHerb/Metals \widetilde{q} MATRIX egbul2 \ IiO 303 אבו כמוב 200 ろしいず Water-Dnnking/Discharge/Leround Pace sorso FAX No. of Containers ENGINGERING TIME M Bassamar ZIP 526 VESSELY SAMPLED なな 303-831-8100 E DATE 1 Please PRINT all information: Plerae Evergreen Analytical Cooler No. S-125:12 BIANK IDENTIFICATION 1700 CITY DEMVER MARCK SAMPLE (signature) Sampler Name: CLIENT Cooler Received مام Instructions: COMPANY ADDRESS. PHONE# (print) ä Ϊ

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FROFFA Date/Time Received by: (Signature) 3/12/65-7,00 Retinguished by: (Signature) Mr. J. Vine

Date/Time Relinquished by: (Signature)

Date/Time Received by: (Signature)

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Date/Time

1015

PO# 722450.262 Do not write in shaded area EAL Sample No. EAL use only Container Size Custodian expedited turnaround subject to additional fee Project Location **FURNAROUND REQUIRED** CLIENT CONTACT (print) EAL. OUOTE # PROJECT I.D. Moisture A X X × × × × 201 ANALYSIS REQUESTED Total Metals-DW / NPDES / SW8 (circle & list metals below)
Dissolved Metals - DW / SW846 (circle & list metals below) X TEPH 8015mod. (Diesel) 4036 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 K X × Ø ¥ TVPH 8015mod. (Gasoline) Z Evergreen Analytical Inc. <u>~</u> ≻ Š TAPH 418.1/Oil & Grease 413.1 (circle) 火 X ¥ BTEX 8020/602 (circle)/MTBE (circle) FAX RESULT\$ Y У X × X ьсв З^{сгөөл} Herbicides 8150/515 (circle) PesyPCBs 8080/608/508 (circle) Pesticides 808\608 (circle) BNA 8270/625 (circle) ⋘ 8260/624/524.2 (circle) VOA/BNA/Pest/Herb/Metals MATRIX . egbul2 \ liO メ X bilo2 \ lio2 (circle) Water-Drinking/Discharge/Ground FAX # ã 70 B No. of Containers ന 3 DATE SAMPLED TIME 5-17-95- Chs 3-17-9- 1415 56MP-1(4-6) 3-7-95 6818 3-17-95 1110 3 3-17-95/1145 1600 3/00 B To ducy 13-4 AC 717, 3-52-66 3-17-41 3+4-65 2 Please PRIN all information: STATE くなべらん Evergreen Analytical Cooler No. 56mp-1(8-40) 2 inseate Blut Scano - 2 (3-15) 56mp.3644) IDENTIFICATION 56 MP- 2(6-3 323 305 56MP-3(11-13 5625-1 (8-10 SAMPLE DIVINA Sampler Name, Cooler Received Instructions: COMPANY ADDRESS (signature) Allah. PHONE# / LUO (print) ÖÖ: Ξ

Ker Morna Date/Time Received by: (Signature) ature)

nquished by: (Signature)

Date/Time | Received by: (Signature)

Date/Time

PO.# 722K Te. 21.22 Date/Ture 1013 EAL use only of write in shaded area EAL Sample No. we the TURY to Container Size CLIENT CONTACT (print) JOhn Hicks Custodian Project # expedited turnaround subject to additional tee Location EAL Date/Time | Received by, (Signature) MACD-11 S. C. B. Cont TURNAROUND REQUIRED* EAL. QUOTE # PROJECT (.D. the 15the B + X X **ANALYSIS REQUESTED** TOC Total Metals-DW / NPDES / SW8 (circle & list metals below)
Dissolved Metals - DW / SW846 (circle & list metals below) <u>.</u>5 × 4 ¥ 名は Comp he tend TEPH 8015mod. (Diesel) Date/Time Relinquished by: (Signature) Wheat Ridge, Colorado 80033 X بز TVPH 8015mod. (Gasoline) ¥ N / ≻ Ilytical Inc. TRPH 418,1/Oil & Crease 413.1 (circle) X Ļ ý X X × (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 4036 Youngfield St. BTEX 8020/602 (circle)/MTBE (circle) K Cantanar FAX RESULTS 706 Semples ¥ × 火 ፞፞፞፞፞ 뵈 X X РСВ Ѕ^{ствел} A Herbicides 8150/515 (circle) Evergreen 🛧 Pest/PCBs 8080/608/508 (circle) 计算 Pesticides 8080/608 (circle) 10/5/01 BNA 8270/625 (circle) ⋘ 466 VOA 8260/624/524.2 (circle) 56MP-5 (9-41) had (on your VOAVBNAVPest/Herb/Metals Kalland Some 15 SCMP-6(10-11), Date/Time Received by: (Signature) MATRIX egbul2 / liO X X bilo2 / lio2 7 Water-Drinking/Discharge/Ground FAX # ZIP 50029.01 G No. of Containers a (830 1200 TIME 230 200 132 3 38 Bordings 3-20-45 3-20-65 SAMPLED 3-20-55 3-20-5 3-20 € 3-2-イア 3-20-6 3-20-8 COMPANY DOUSONS ES DATE Evergreen Analytical Cooler No. 7/2 Please PRINT CITY 1 STATE (C) allno all information: のもなっ 33 (-81W Sanor 56 mp - 6 (10-11) 51. A- 3 (4-c) 56 MP-5 (9-11) 56 mp-16 (4-6) by (Signature) 56 mp-6(44) SEMPS(4-6) からいってい **IDENTIFICATION** 200 L} Mutre Spike Sampler Name? SAMPLE Tro Blank Cooler Received instructions: mot 2 ADDRESS Religioushe PHONE# (signature) 00 Ϊ

BTEX Data Report

Client Sample Number Lab Sample Number Date Sampled Date Received Date Extracted/Prepared Date Analyzed Methanol Extract? % Moisture	: MD24-7-/ : X04554 : 3/21/95 : 3/22/95 : 3/26/95 : 3/27/95 , : No	Client Project No. Lab Project No. Dilution Factor Method Matrix Lab File No. Method Blank No. Sample	: 722450.21020 MacDill AFB : 95-0915 : 1.00 : 602 : Water : BX2032618 : MB032695
Compound Name	Cas Number	Concentration	PQL
•		ug/L	ug/L
Benzene	71-43-2	3.1 J	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	0.7 J	4.0
Surrogate Recovery (α,α,α-Trit	luorotoluene):	100%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

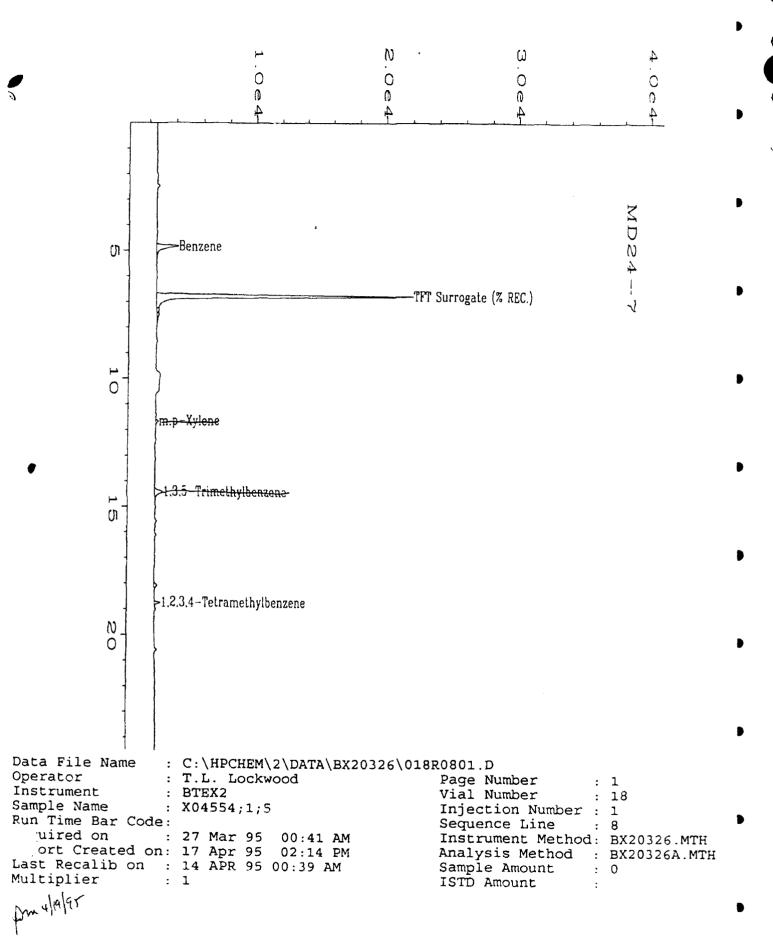
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Approved



BTEX Data Report

UP) (
•	MacDill AFB
Lab Project No.	: 95-0915
Dilution Factor	: 1.00
Method	: 602
Matrix	: Water
Lab File No.	: BX2032711
Method Blank No.	: MB032795
Sample	
er Concentration	PQL
ug/L	ug/L
3.2 J	4.0
U	4.0
U	4.0
7 U	4.0
U	4.0
U	4.0
U	4.9
U	4.0
U	4.0

100%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.

Surrogate Recovery (α,α,α-Trifluorotoluene):

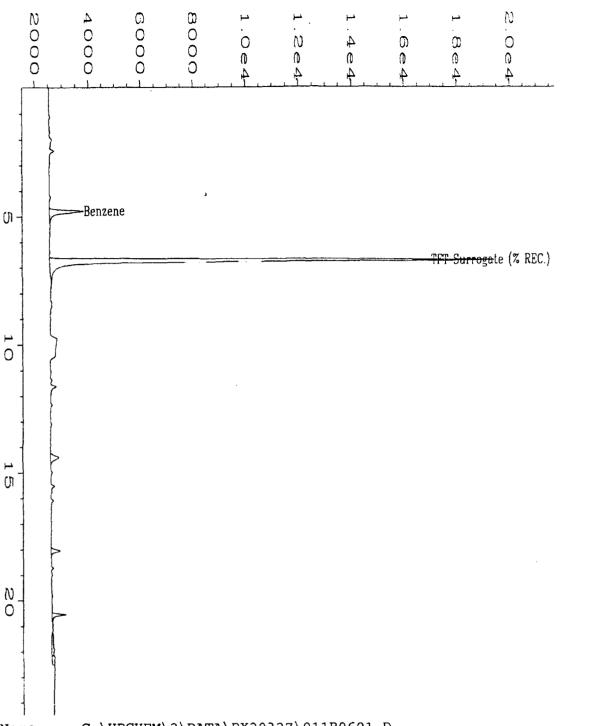
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

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70%-130% (QC limits)



Data File Name : C:\HPCHEM\2\DATA\BX20327\011R0601.D Page Number : C.J. Cook Operator : 11 Vial Number : BTEX2 Instrument Injection Number: 1 : X04555;1;5 Sample Name : 6 Sequence Line Run Time Bar Code: : 27 Mar 95 06:05 PM Instrument Method: BX20327.MT Acquired on Analysis Method : BX20327A.N Report Created on: 17 Apr 95 12:35 PM

Last Recalib on : 14 APR 95 00:39 AM Sample Amount : Multiplier : 1 ISTD Amount :

Sample Info : Project#: 95-0915 Client#: MD24-7(DUP) Water

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: MD24-7(DUP)		MacDill AFB
Lab Sample Number	: X04555DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/21/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/27/95	Matrix	: Water
Date Analyzed	: 3/27/95,	Lab File No.	: BX2032712
Methanol Extract?	: No	Method Blank No.	: MB032795
% Moisture	NA		
		Sample	
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	2.3 J	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	υ	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0
Surrogate Recovery (α,α,α-Trif	luorotoluene):	70%	70%-130% (QC limits

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

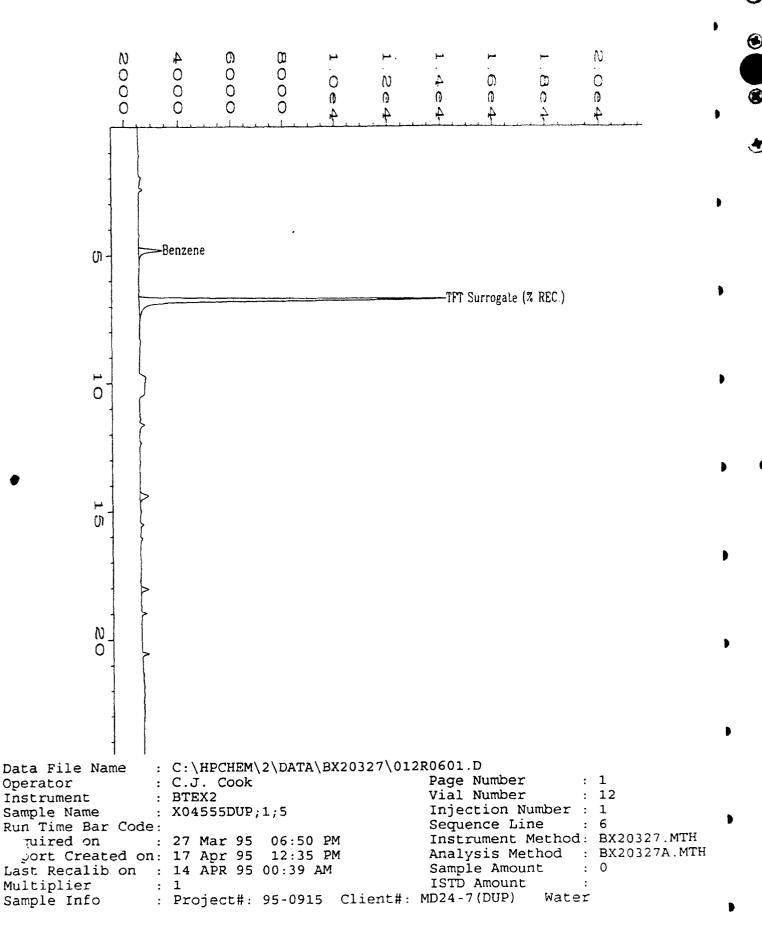
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

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BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: MD24-9		MacDill AFB
Lab Sample Number	: X04551	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032612
Methanol Extract?	: No	Method Blank No.	: MB032695
% Moisture	NA		
		C1-	

		Sample	
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	υ	4.0
Total Xylenes	1330-20-7	0.5 JB	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzena	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	υ	4.0

Surrogate Recovery (α,α,α-Trifluorotoluene): 99%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

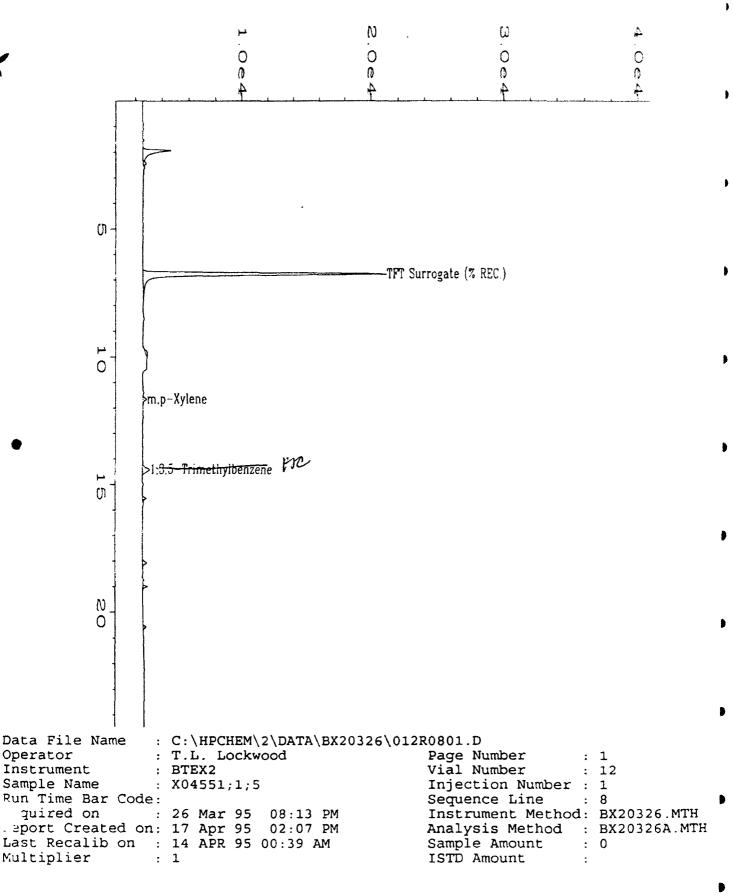
- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

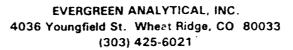
NA = Not available.

Analyst

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70%-130% (QC limits)





BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: MD24-9		MacDill AFB
Lab Sample Number	: X04551DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032613
Methanol Extract?	: No	Method Blank No.	: MB032695
% Moisture	NA		

% Moisture	NA								
		Sample							
Compound Name	Cas Number	Concentration	PQL						
		ug/L	ug/L						
Benzene	71-43-2	U	4.0						
Toluene	108-88-3	U	4.0						
Ethyl Benzene	100-41-4	U	4.0						
Total Xylenes	1330-20-7	U	4.0						
Chiorobenzene	108-90-7	U	4.0						
1,3,5-trimethylbenzene	108-67-8	U	4.0						
1,2,4-trimethylbenzene	95-63-6	υ	4.0						
1,2,3-trimethylbenzene	526-73-8	U	4.0						
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0						

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

106%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

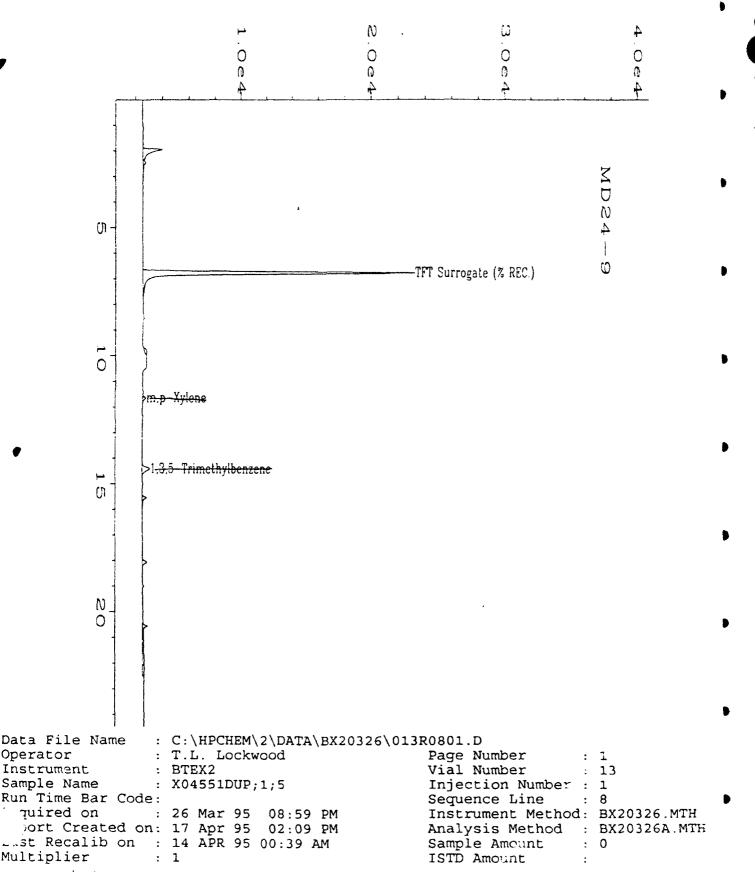
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

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Analyst

Approved



pm 4/19/95

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: MD24-10√		MacDill AFB
Lab Sample Number	: X04553	Lab Project No.	: 95-0915
Date Sampled	: 3/21/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/26/95,	Lab File No.	: BX2032617
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		
		Sample	
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	υ	4.0
Ethyl Benzene	100-41-4	U	4.0

Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

100%

70%-130% (QC limits)

4.0

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

1,2,3,4-tetramethylbenzene

- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.

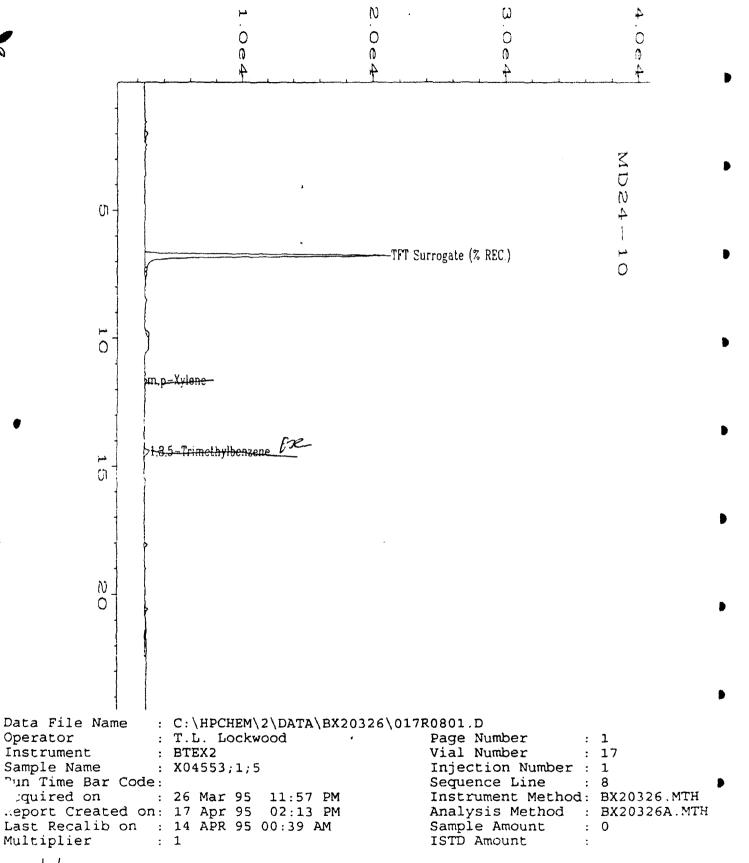
488-23-3

- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

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Approved



Dra 4/19/95

Operator

BTEX Data Report

Client Sample Number	: MD24-10A √	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04552	Lab Project No.	: 95-0915
Date Sampled	: 3/21/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/26/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032616
Methanol Extract?	: No	Method Blank No.	: MB032695
% Moisture	NA		

	Sample		
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	ប	4.0
Ethyl Benzene	100-41-4	υ	4.0
Total Xylenes	1330-20-7	0.5 JB	4.0
Chlorobenzene	108-90-7	υ	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

100%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

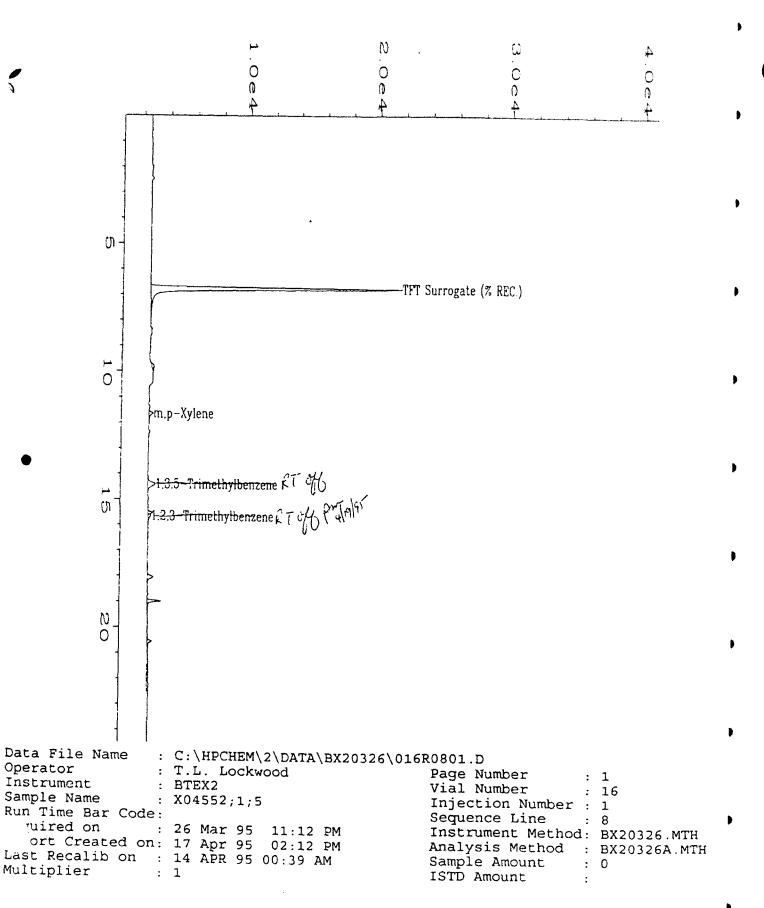
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Approved

70%-130% (QC limits)



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BTEX Data Report

Client Sample Number	: 24MP-3S √	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04547	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95.	Lab File No.	: BX2032517
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

	Sample		
Compound Name	Cas Number	Concentration	PQL ug/L
		ug/L	
Benzene	71-43-2	U	4.0
Toluene	108-88-3	3.6	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	0.7 J	4.0

83%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

Surrogate Recovery (a,a,a-Trifluorotoluene):

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

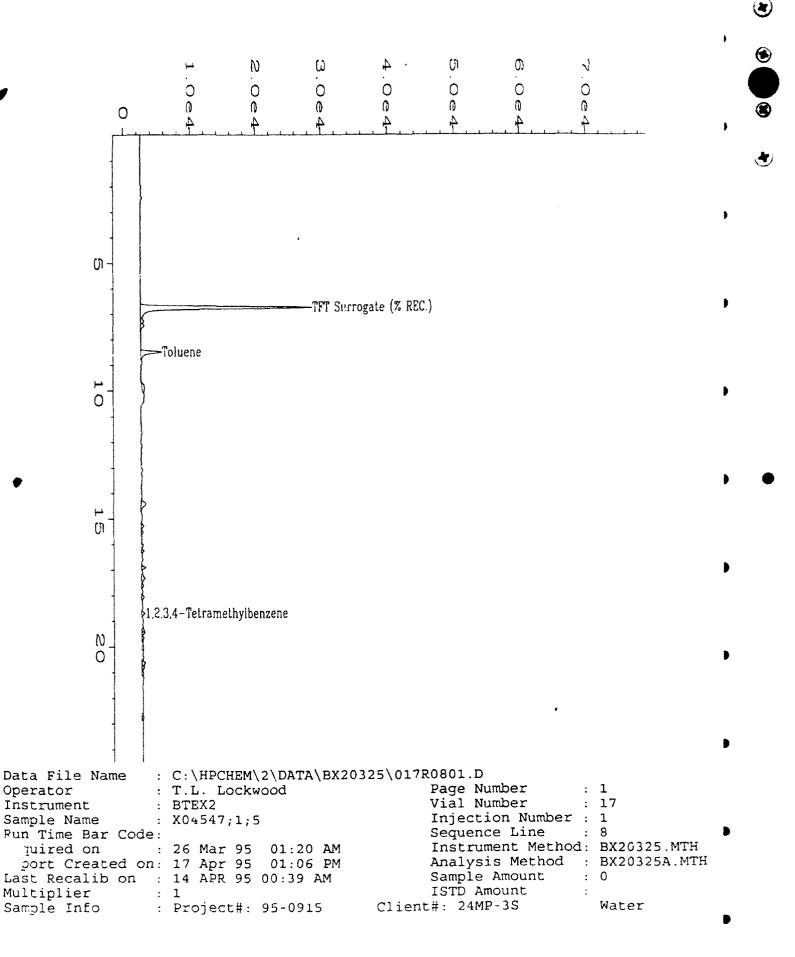
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Approved

70%-130% (QC limits)



BTEX Data Report

	,	Client Project No.	: 722450.21020
Client Sample Number	: 24MP-3D		MacDill AFB
Lab Sample Number	: X04548	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95,	Lab File No.	: BX2032518
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		
		Sample	
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	υ	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0

Surrogate Recovery (α,α,α-Trifluorotoluene):

Note: Total Xylenes consist of three isomers, two of which co-elute.

8.0

83%

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

1,2,3,4-tetramethylbenzene

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

488-23-3

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

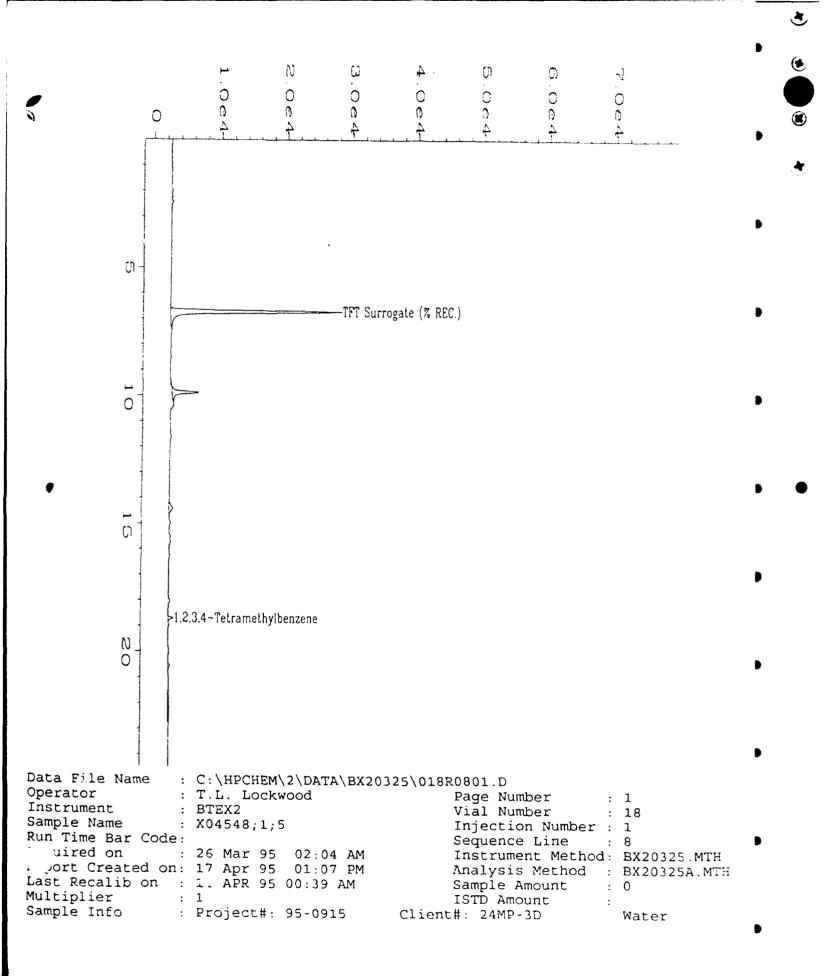
NA = Not available.

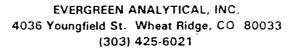
Analyst

Approved

4.0

70%-130% (QC limits)





BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24NIP-5S		MacDill AFB
Lab Sample Number	: X04546	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/25/95	Lab File No.	: BX2032513
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

Sample				
Cas Number	Concentration	PQL		
	ug/L	ug/L		
71-43-2	U	4.0		
108-88-3	9.3	4.0		
100-41-4	U	4.0		
1330-20-7	υ	4.0		
108-90-7	U	4.0		
108-67-8	U	4.0		
95-63-6	U	4.0		
526-73-8	U	4.0		
488-23-3	U	4.0		
	71-43-2 108-88-3 100-41-4 1330-20-7 108-90-7 108-67-8 95-63-6 526-73-8	Cas Number Concentration ug/L 71-43-2 U 108-88-3 9.3 100-41-4 U 1330-20-7 U 108-90-7 U 108-67-8 U 95-63-6 U 526-73-8 U		

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

89%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

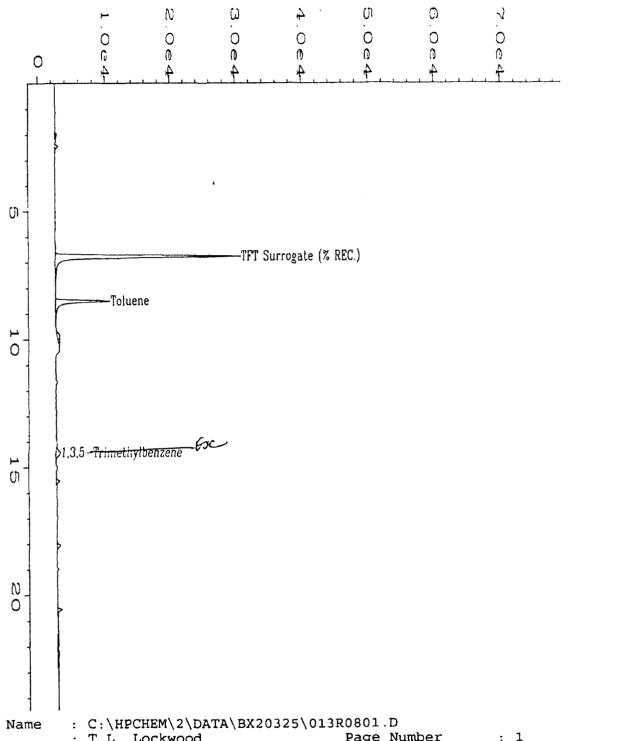
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Approved



Data File Name Page Number : 1 Operator : T.L. Lockwood Vial Number : 13 Instrument : BTEX2 Injection Number: 1 Sample Name : X04546;1;5

Time Bar Code: Sequence Line : 8

Instrument Method: BX20325.MTH quired on : 25 Mar 95 10:23 PM Analysis Method : BX20325A.MTH Report Created on: 17 Apr 95 01:03 PM

Last Recalib on : 14 APR 95 00:39 AM Sample Amount : 0 ISTD Amount Multiplier : 1

Client#: 24MP-5S : Project#: 95-0915 Water Sample Info

BTEX Data Report

	•	Client Project No.	: 722450.21020
Client Sample Number	: 24MP-5S ⁽		MacDill AFB
Lab Sample Number	: X04546DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/25/95,	Lab File No.	: BX2032514
Methanol Extract?	: No	Method Blank No.	: MB032595
% Moisture	NA		

	Sample			
Compound Name	Cas Number	Concentration	PQL	
		ug/L	ug/L	
enzene	71-43-2	U	4.0	
uene	108-88-3	9.0	4.0	
I Benzene	100-41-4	U	4.0	
al Xylenes	1330-20-7	U	4.0	
robenzene	108-90-7	υ	4.0	
5-trimethylbenzene	108-67-8	U	4.0	
,4-trimethylbenzene	95-63-6	U	4.0	
2,3-trimethylbenzene	526-73-8	U	4.0	
2,3,4-tetramethylbenzene	488-23-3	U	4.0	

Surrogate Recovery (α,α,α-Trifluorotoluene):

90%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

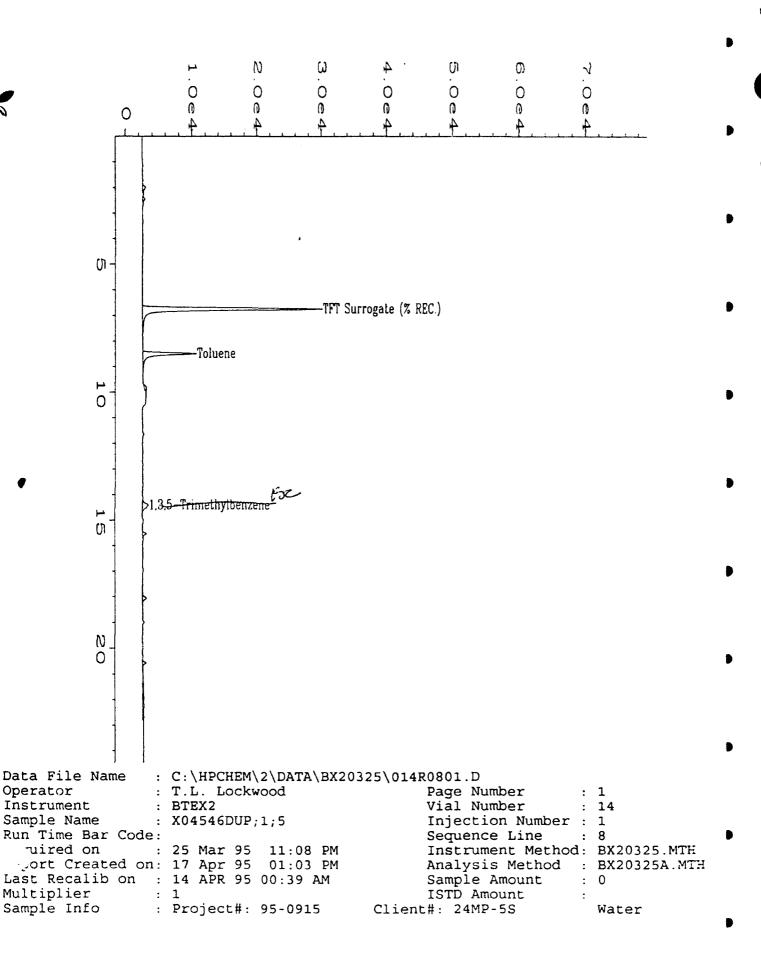
PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

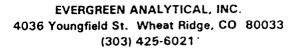
NA = Not available.

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Analyst

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BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-8S√		MacDill AFB
Lab Sample Number	: X04550	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95	Lab File No.	: BX2032521
Methanol Extract?	: No '	Method Blank No.	: MB032595
% Moisture	NA		

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Sample	
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	5.4	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

76% 70%-130% (QC limits) Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

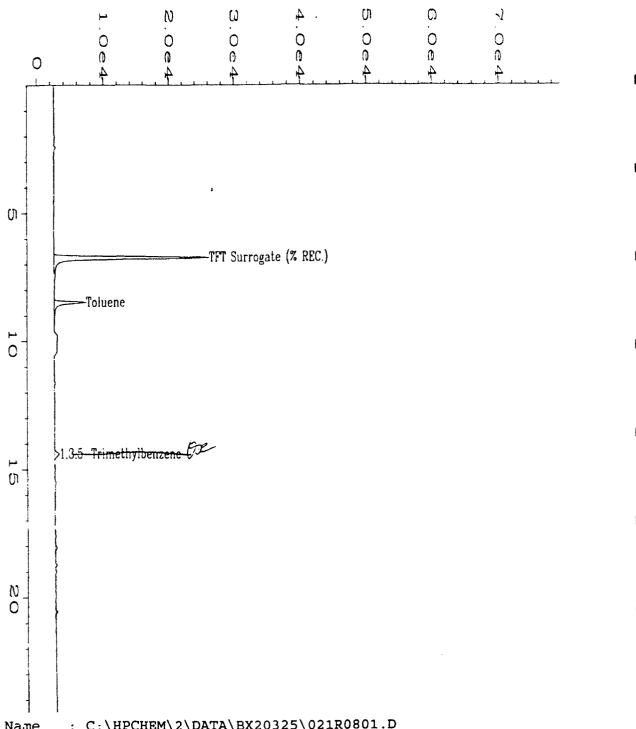
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



: C:\HPCHEM\2\DATA\BX20325\021R0801.D Data File Name : 1 Page Number Operator : T.L. Lockwood Vial Number Instrument : BTEX2 Injection Number: 1 Sample Name : X04550;1;5 : 8 Run Time Bar Code: Sequence Line Instrument Method: BX20325.MTH quired on : 26 Mar 95 04:16 AM port Created on: 17 Apr 95 01:11 PM Analysis Method : BX20325A.MTH

Last Recalib on : 14 APR 95 00:39 AM Sample Amount : 0 Multiplier : 1 ISTD Amount :

Sample Info : Project#: 95-0915 Client#: 24MP-8S Water

BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: 24MP-8S./		MacDill AFB
Lab Sample Number	: X04550DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/25/95	Matrix	: Water
Date Analyzed	: 3/26/95,	Lab File No.	: BX2032522
Methanoi Extract?	: No	Method Blank No.	: MB032595
O/ Mainturo	RI A		

% Moisture Compound Name	NA			
		Sample		
Compound Name	Cas Number	Concentration	PQL	
		ug/L	ug/L	
Benzene	71-43-2	U	4.0	
Toluene	108-88-3	5.6	4.0	
Ethyl Benzene	100-41-4	U	4.0	
Total Xylenes	1330-20-7	ប	4.0	
Chlorobenzene	108-90-7	U	4.0	
1,3,5-trimethylbenzene	108-67-8	U	4.0	
1,2,4-trimethylbenzene	95-63-6	υ	4.0	
1,2,3-trimethylbenzene	526-73-8	U	4.0	
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0	

Surrogate Recovery (\alpha, \alpha, \alpha - Trifluorotoluene):

83%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

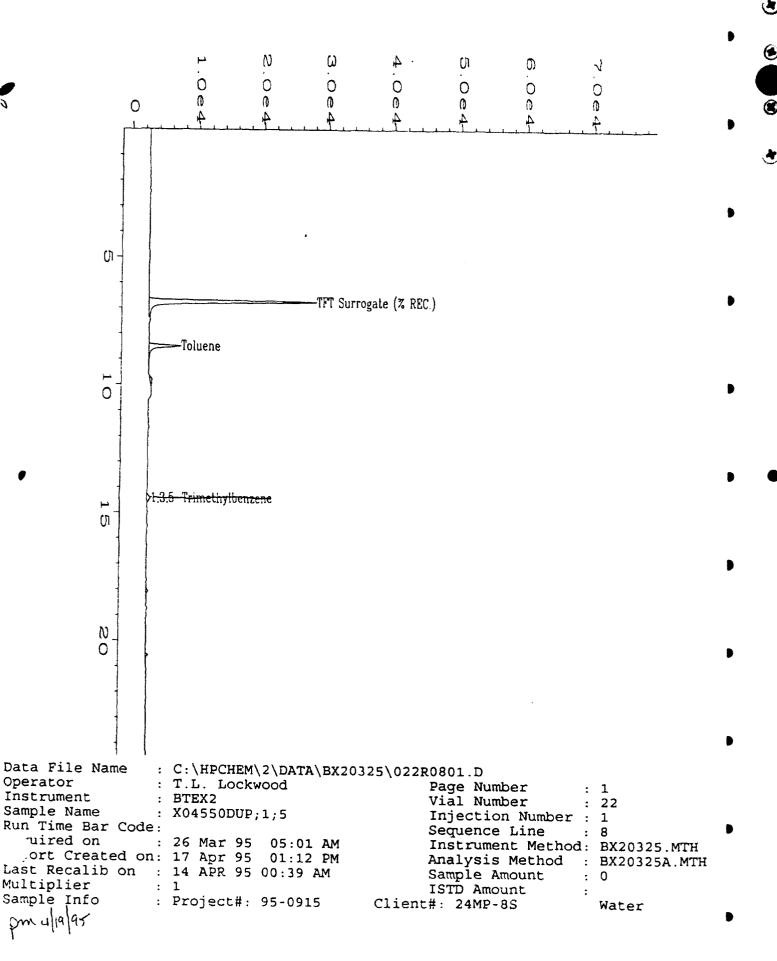
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Approved



BTEX Data Report

Client Sample Number Lab Sample Number Date Sampled Date Received Date Extracted/Prepared Date Analyzed Methanol Extract? % Moisture	: 24MP-8D ^J : X04549 : 3/20/95 : 3/22/95 : 3/25/95 : 3/26/95 : No NA	Client Project No. Lab Project No. Dilution Factor Method Matrix Lab File No. Method Blank No.	: 722450.21020 MacDill AFB : 95-0915 : 1.00 : 602 : Water : BX2032520 : MB032595
Compound Name	Cas Number	Sample Concentration ug/L	PQL ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	U	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

84%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.

Surrogate Recovery (\alpha, \alpha, \alpha - Trifluorotoluene):

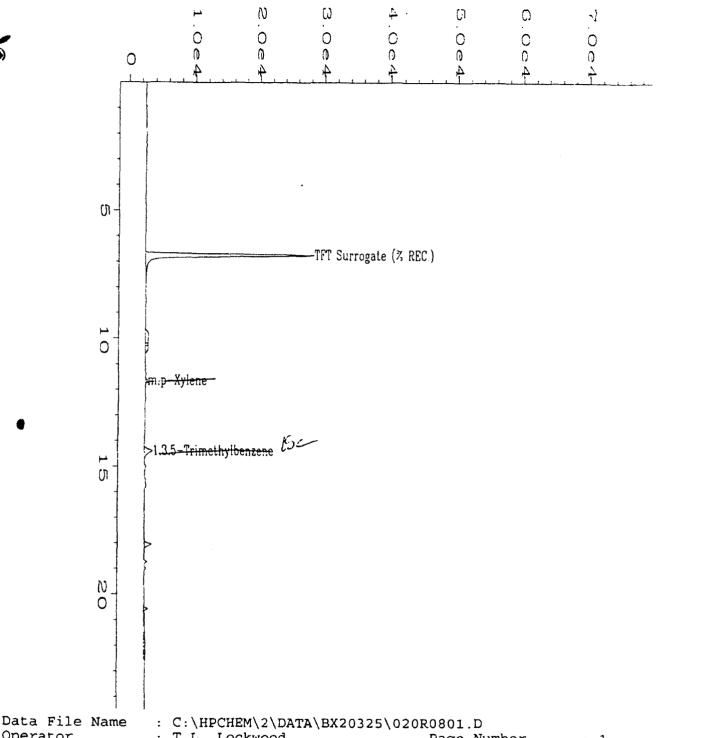
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

Approved

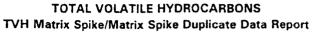
70%-130% (QC limits)



Operator : T.L. Lockwood Page Number Instrument : BTEX2 Vial Number : 20 Sample Name : X04549;1;5 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 juired on : 26 Mar 95 03:32 AM Instrument Method: BX20325.MTH port Created on: 17 Apr 95 01:10 PM Analysis Method : BX20325A.MTH Last Recalib on : 14 APR 95 00:39 AM Sample Amount : 0 : 1 Multiplier ISTD Amount Sample Info : Project#: 95-0915 Client#: 24MP-8D Water

Om 4/19/95

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021



Client Sample No.

: 56MP-1(4-6)

Client Project No.

: 722450.21020/MAC

Lab Sample No. Date Sampled

: X04557 : 3/17/95 Lab Project No. EPA Method No.

: 95-0915 : 5030/8015 Mod.

Date Received

: 3/22/95

Matrix

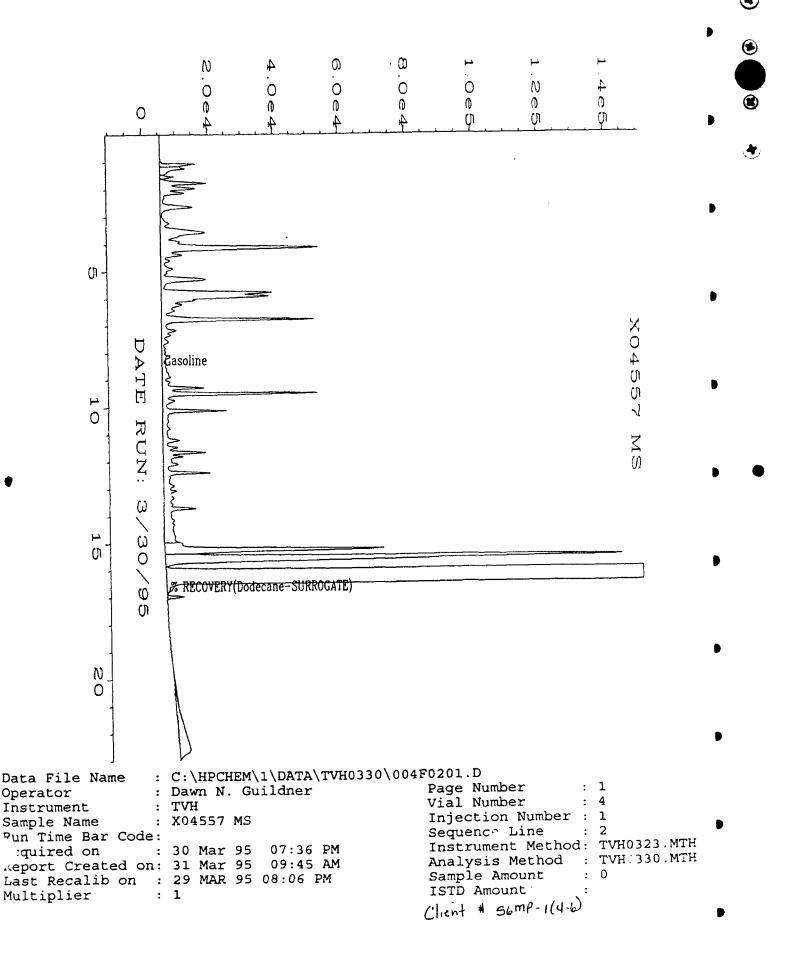
: SOIL

Date Prepared Date Analyzed : 3/30/95 : 3/30/95 Method Blank : MB033095

	Spike	Sample	MS		ОС
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/kg)	(mg/kg)	(mg/kg)	%REC	%REC
Gasoline	1.00	0.00	0.93	93%	60-140

Compound	Spike Added	MSD Concentration	MS	RPD	_	ıC nits
	(mg/kg)	(mg/kg)	%REC	_	RPD	%REC
Gasoline	1.00	0.91	91%	2	50	60-140

*= Values outside	of QC limits.
RPD:	out of (1) outside limits.
Spike Recovery:	O out of {2} outside limits.
Comments:	NA = Not analyzed/not applicable.

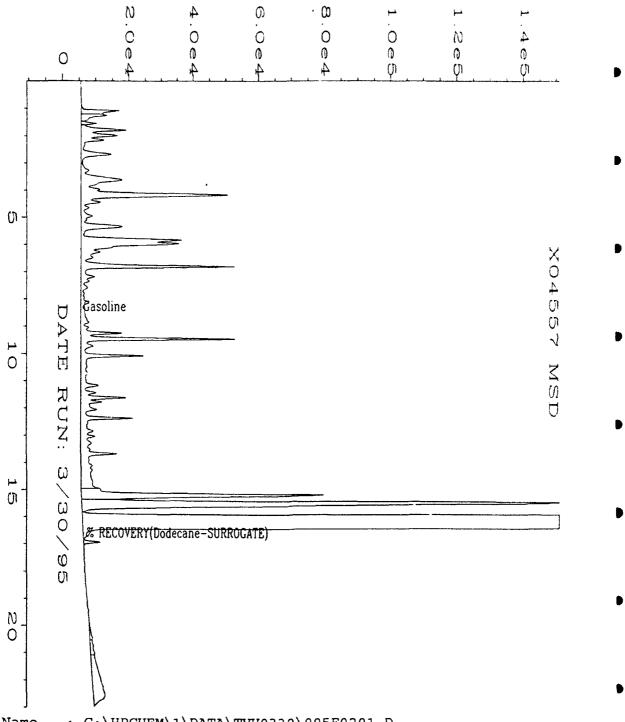


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Data File Name : C:\HPCHEM\1\DATA\TVH0330\005F0201.D Operator : Dawn N. Guildner Page Number Instrument : TVH Vial Number : 5 Sample Name : X04557 MSD Injection Number : 1 Run Time Bar Code: 2 Sequence Line Instrument Method: TVH0323 Acquired on : 30 Mar 95 08:10 PM Report Created on: 31 Mar 95 Analysis Method 09:46 AM : TVH0330.MTH Last Recalib on : 29 MAR 95 08:06 PM Sample Amount : 0 Multiplier ISTD Amount Client # 56MP-1 (4-6)

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Project No.

: 722450.21020

Client Sample No.

: 24MP-5S

MacDill AFB

Lab Sample No.

: X04546

Lab Project No.

: 95-0915

Date Sampled
Date Received

: 3/20/95

EPA Method No.

: 602

Date Prepared

: 3/22/95 : 3/25/95 Matrix

: Water : 8X2032515,16

Date Analyzed

: 3/25,26/1995

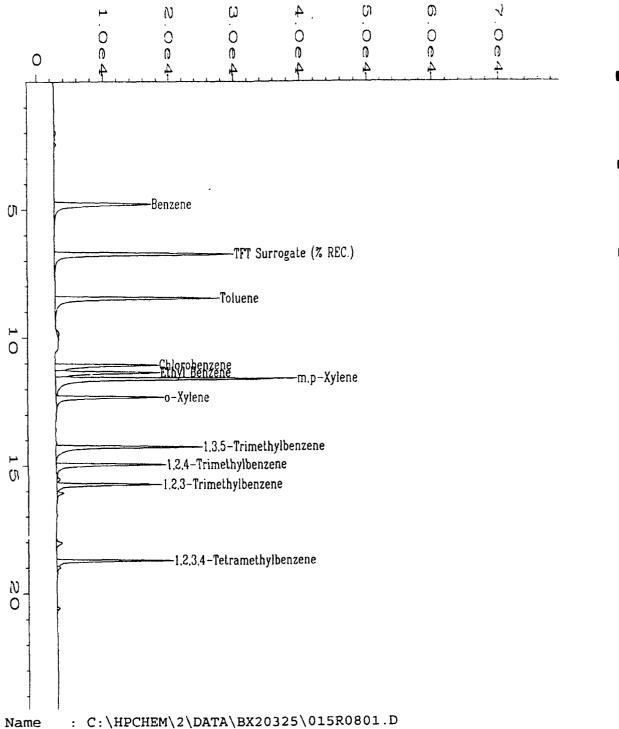
Lab File Number(s) Method Blank

: MB032595

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20.0	0.0	16.7	84	50-150
Toluene	20.0	9.3	26.1	84	50-148
Ethyl Benzene	20.0	0.0	16.5	83	50-150
m,p-Xylene	40.0	0.0	32.2	81	50-150
o-Xylene	20.0	0.0	15.9	80	50-150
Chlorobenzene	20.0	0.0	16.9	85	55-13!
1,3,5-TMB	20.0	0.0	16.4	82	50-150
1,2,4-TMB	20.0	0.0	16.4	82	50-150
1,2,3-TMB	20.0	0.0	16.3	82	50-150
1,2,3,4-TeMB	20.0	0.0	15.9	80	50-150

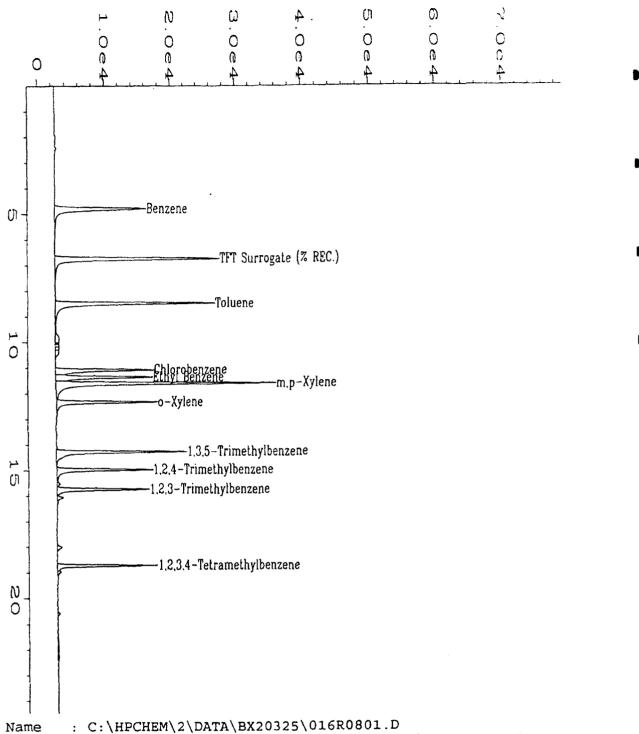
	Spike	MSD			(DC .
Compound	Added	Concentration	MSD	RPD	Lir	nits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20.0	15.9	80	4.9	25	50-150
Toluene	20.0	24.9	78	7.4	25	50-148
Ethyl Benzene	20.0	15.5	78	6.3	25	50-150
m,p-Xylene	40.0	29.7	74	8.1	25	50-150
o-Xylene	20.0	14.8	74	7.2	25	50-150
Chlorobenzene	20.0	16.2	81	4.2	25	55-135
1,3,5-TMB	20.0	14.3	72	13.7	25	50-150
1,2,4-TMB	20.0	14.3	72	13.7	25	50-150
1,2,3-TMB	20.0	14.7	74	10.3	25	50-150
1,2,3,4-TeMB	20.0	. 13.6	68	15.6	25	50-150

= Values outside	of QC limit	ts.	
RPD:	0	out of (10) outside limits.	
Spike Recovery:	0	out of (20) outside limits.	
Comments: Analyst			Approved
Andry 30			MS0915A.XLS



Data File Name Page Number : T.L. Lockwood Operator Vial Number : 15 : BTEX2 Instrument Injection Number: 1 : X04546MS;1;5 Sample Name Sequence Line : 8 Run Time Bar Code: Instrument Method: BX20325 Acquired on : 25 Mar 95 11:51 PM : BX20325, Report Created on: 17 Apr 95 01:04 PM Analysis Method Sample Amount Last Recalib on : 14 APR 95 00:39 AM ISTD Amount Multiplier

Sample Info : Project#: 95-0915 Client#: 24MP-5S Water



Data File Name Page Number : T.L. Lockwood Operator Vial Number : 16 : BTEX2 Instrument Injection Number: 1 Sample Name : X04546MSD;1;5 : 8 Sequence Line Run Time Bar Code: Instrument Method: BX20325.MTH : 26 Mar 95 00:36 AM Acquired on

Drt Created on: 17 Apr 95 01:05 PM Analysis Method : BX20325A.MTH
Lit Recallb on : 14 APR 95 00:39 AM Sample Amount : 0
Multiplier : 1 ISTD Amount :

Multiplier : 1 ISTD Amount : Sample Info : Project#: 95-0915 Client#: 24MP-5S Water

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Project No.

: 722450.21020

Client Sample No.

: MD24-9

Lab Project No.

MacDill AFB

Lab Sample No.

Date Sampled

: X04551

EPA Method No.

: 95-0915

Date Received

: 3/20/95 : 3/22/95

Matrix

: 602 : Water

Date Prepared Date Analyzed

: 3/26/95 : 3/26/95 Lab File Number(s)

: BX2032614,15

Method Blank

: MB032695

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	20.0	0.0	17.3	87	65-121
Toluene	20.0	0.0	17.1	86	69-117
Ethyl Benzene	20.0	0.0	17.3	87	68-118
m,p-Xylene	40.0	0.5	34.6	85	66-116
o-Xylene	20.0	0.0	17.3	87	73-117
Chlorobenzene	20.0	0.0	17.3	87	65-121
1,3,5-TMB	20.0	0.0	16.8	84	65-121
1,2,4-TMB	20.0	0.0	17.1	86	65-121
1,2,3-TMB	20.0	0.0	17.2	86	65-121
1,2,3,4-TeMB	20.0	0.0	16.7	84	65-12

	Spike	MSD			T 0	1C
Compound	Added	Concentration	MSD	RPD	Lir	nits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20.0	17.7	89	2.3	17.4	65-121
Toluene	20.0	17.5	88	2.3	15.8	69-117
Ethyl Benzene	20.0	17.7	89	2.3	11.9	68-118
m,p-Xylene	40.0	35.3	87	2.0	15.4	66-116
o-Xylene	20.0	17.8	89	2.8	13.2	73-117
Chlorobenzene	20.0	17.8	89	2.8	17.4	65-121
1,3,5-TMB	20.0	17.2	86	2.4	17.4	65-121
1,2,4-TMB	20.0	17.8	89	4.0	17.4	65-121
1,2,3-TMB	20.0	17.9	90	4.0	17.4	65-121
1,2,3,4-TeMB	20.0	17.8	89	6.4	17.4	65-121

* = '	Values	outside	of	σc	limits.	

RPD:

O out of (10) outside limits.

Spike Recovery:

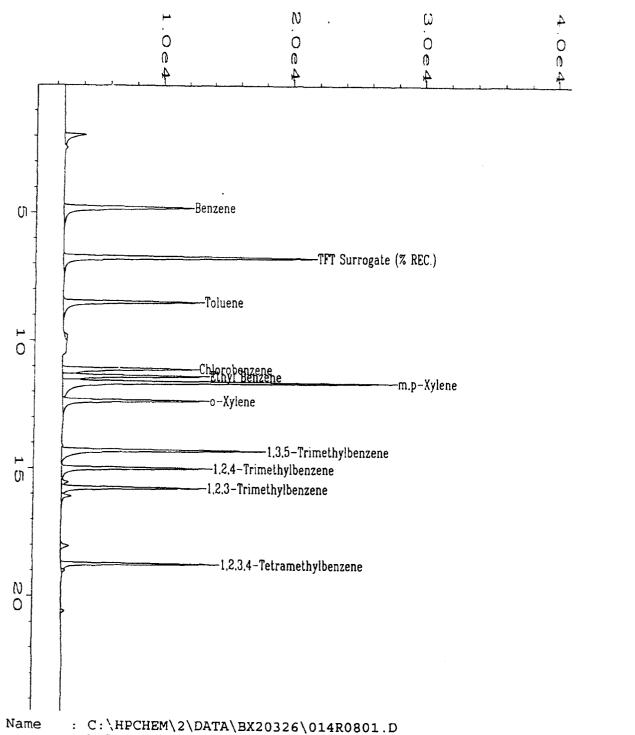
O out of (20) outside limits.

Comments:

Analyst

Approved

MS0915B.XLS



Data File Name : C:\HPCHEM\2\DATA\BX20326\014R0801.D

Operator : T.L. Lockwood Page Number : 1

Instrument : BTEX2 Vial Number : 1

Sample Name : X04551MS;1;5 Injection Number : 1

Run Time Bar Code:

Run Time Bar Code:

Quired on : 26 Mar 95 09:43 PM

Port Created on: 17 Apr 95 02:10 PM

Injection Number : 1

Sequence Line : 8

Instrument Method: BX20326.MTH

Analysis Method : BX20326A.MTH

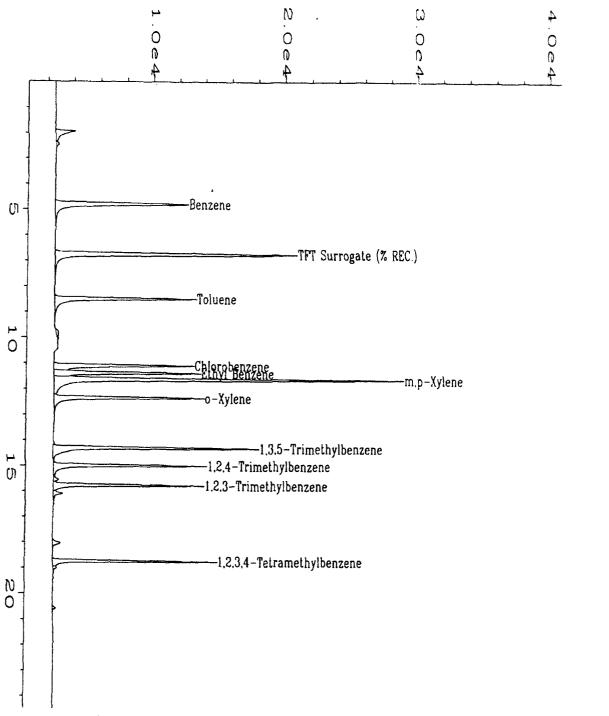
Last Recalib on : 14 APR 95 00:39 AM

Multiplier : 1

Analysis Method : BX20326A.MTH

Sample Amount : 0

ISTD Amount :



١

Data File Name : C:\HPCHEM\2\DATA\BX20326\015R0801.D : T.L. Lockwood Operator Page Number Instrument : BTEX2 Vial Number : 15 Sample Name : X04551MSD;1;5 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Acquired on : 26 Mar 95 10:27 PM Instrument Method: BX20326 Report Created on: 17 Apr 95 02:10 PM Analysis Method : BX20326A...TE Last Recalib on : 14 APR 95 00:39 AM Sample Amount : 0 Multiplier : 1 ISTD Amount

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Project No.

: 722450.21020

Client Sample No.

: Matrix Spike 3/20

MacDill AFB

Lab Sample No.

Date Sampled

: X04571

Lab Project No. EPA Method No. : 95-0915

Date Sampled
Date Received

: 3/20/95

Madely

: 8020

Date Prepared

: 3/22/95

Matrix

: SOIL : BX2032926,27

Date Analyzed

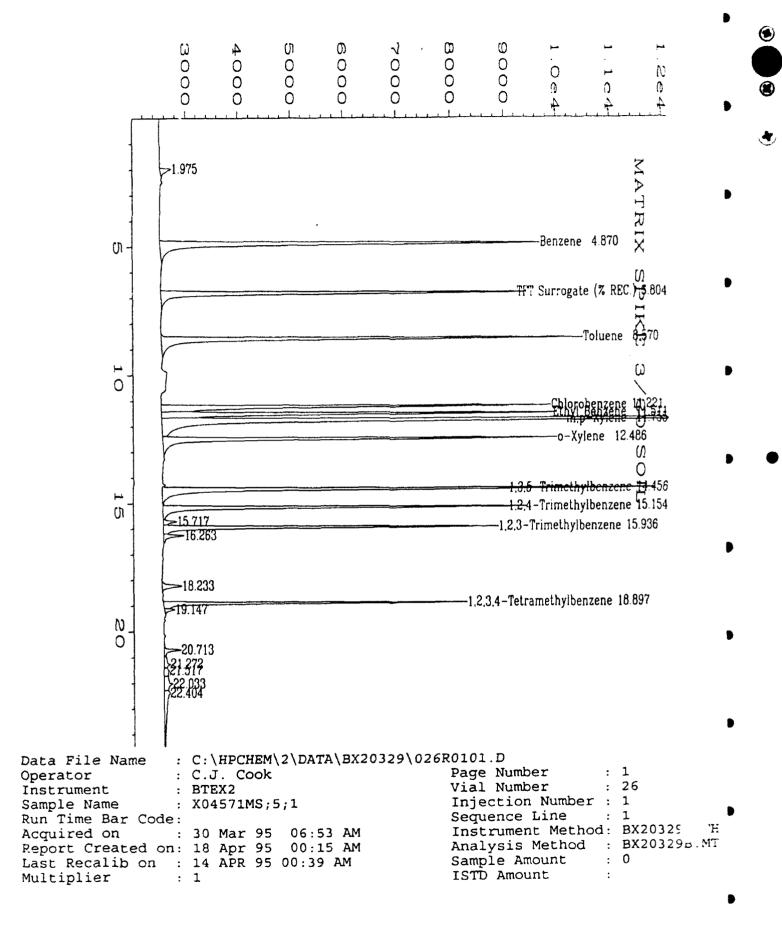
: 3/29/95 : 3/30/95 Lab File Number(s)
Method Blank

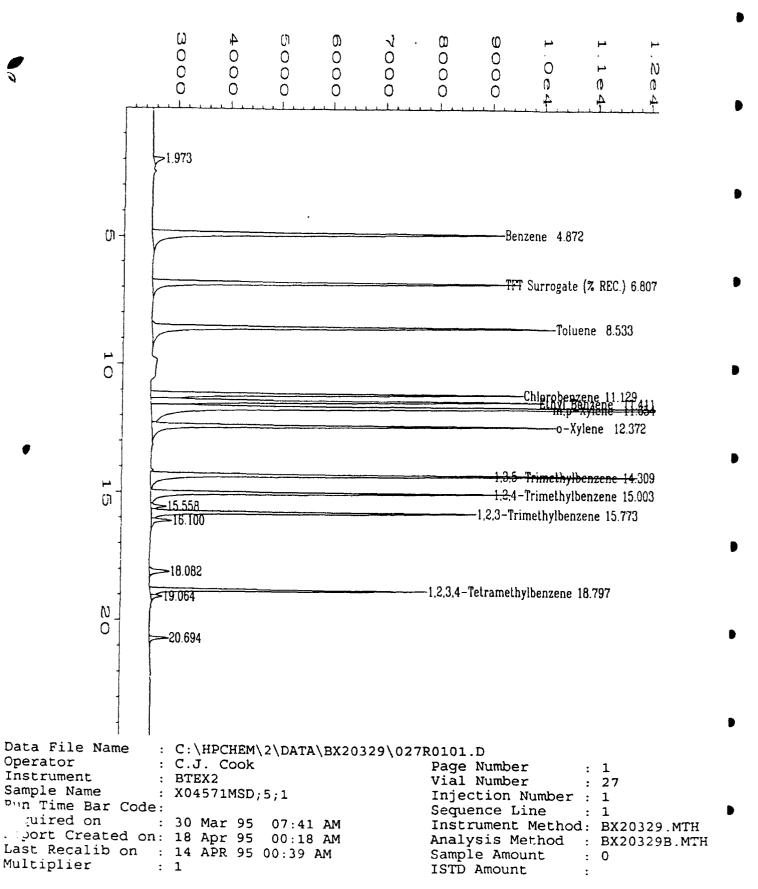
: MB032995

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	(ug/L)	%REC	%REC
Benzene	40.0	0.0	35.3	88	50-150
Toluene	40.0	0.0	32.6	82	50-148
Ethyl Benzene	40.0	0.0	28.4	71	50-150
m,p-Xylene	80.0	0.0	54.3	B 68	50-150
o-Xylene	40.0	0.0	30.6	77	50-150
Chlorobenzene	40.0	0.0	32.8	82	55-135
1,3,5-TMB	40.0	0.0	24.4	61	50-150
1,2,4-TMB	40.0	0.0	26.9	67	50-150
1,2,3-TMB	40.0	0.0	27.1	68	50-150
1,2,3,4-TeMB	40.0	0.0	22.0	55	50-150

	Spike	MSD			(1C
Compound	Added	Concentration	MSD	RPD	Lin	mits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	40.0	32.5	81	8.3	25	50-150
Toluene	40.0	31.7	79	2.8	25	50-148
Ethyl Benzene	40.0	28.0	70	1.4	25	50-150
m,p-Xylene	80.0	53.4 B	67	1.7	25	50-150
o-Xylene	40.0	30.3	76	1.0	25	50-150
Chlorobenzene	40.0	32.2	81	1.8	25	55-135
1,3,5-TMB	40.0	24.1	60	1.2	25	50-150
1,2,4-TMB	40.0	26.7	67	0.7	25	50-150
1,2,3-TMB	40.0	27.2	68	0.4	25	50-150
1,2,3,4-TeMB	40.0	21.5	54	2.3	25	50-150

* = Values outside o	f QC limi	its.			
RPD:	0	out of (10)	outside limits.		
Spike Recovery:	0	out of (20)	outside limits.		
Comments:	- .			PMCalla	2
Analyst				Approved	MS0915F XIS





BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Trip Blank		MacDill AFB
Lab Sample Number	: X04573	Lab Project No.	: 95-0915
Date Sampled	: NA	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/29/95	Matrix	: Water
Date Analyzed	: 3/30/95	Lab File No.	: BX2032922
Methanol Extract?	: No '	Method Blank No.	: MB032995
% Moisture	: NA		

70 MOSTULE	. 1474				
	Sample				
Compound Name	Cas Number	Concentration	PQL		
		ug/L	ug/L		
Benzene	71-43-2	U	4.0		
oluene	108-88-3	U	4.0		
hyl Benzene	100-41-4	U	4.0		
otal Xylenes	1330-20-7	υ	4.0		
lorobenzene	108-90-7	U	4.0		
3,5-trimethylbenzene	108-67-8	U	4.0		
2,4-trimethylbenzene	95-63-6	U	4.0		
,2,3-trimethylbenzene	526-73-8	U	4.0		
,2,3,4-tetramethylbenzene	488-23-3	U	4.0		

Surrogate Recovery (a,a,a-Trifluorotoluene):

82%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

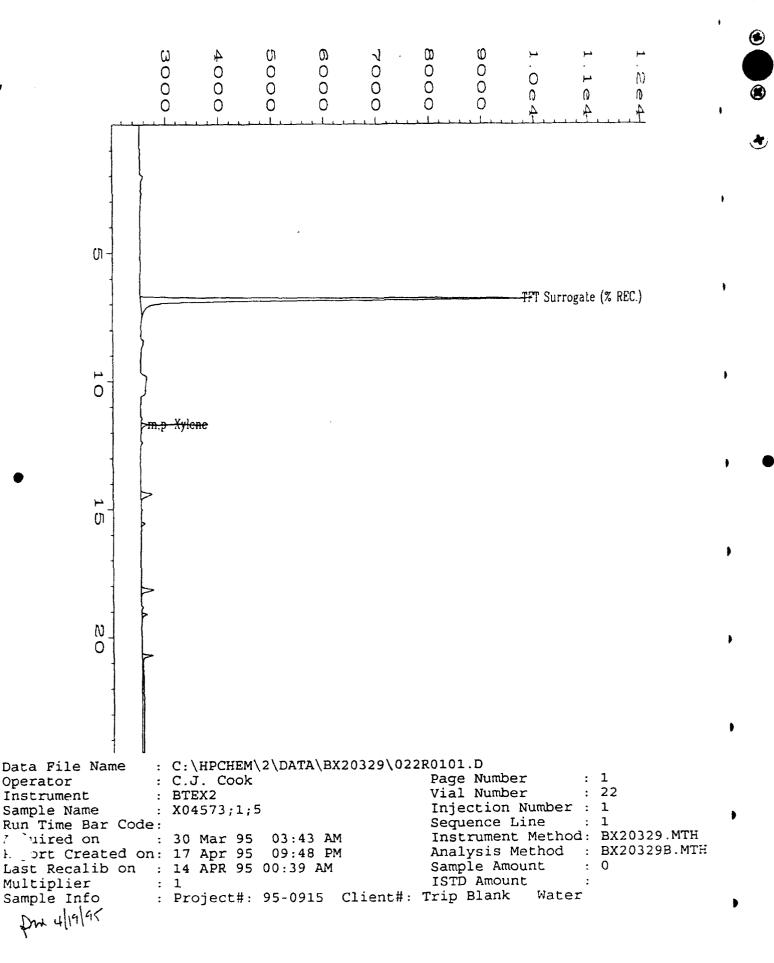
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available/Not Applicable.

Analyst

Approved



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BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Matrix Spike 3/20		MacDill AFB
Lab Sample Number	: X04571	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 5.00
Date Received	: 3/22/95	Method	: 8020
Date Extracted/Prepared	: 3/30/95	Matrix	: Soil
Date Analyzed	: 3/31/95	Lab File No.	: BX2033019
Methanol Extract?	: No	Method Blank No.	: MB033095
% Moisture	: 23.58%		

	Sample		
Compound Name	Cas Number	Concentration*	PQL*
		ug/kg	ug/kg
Benzene	71-43-2	U	26
Toluene	108-88-3	U	26
Ethyl Benzene	100-41-4	U	26
otal Xylenes	1330-20-7	U	26
Chlorobenzene	108-90-7	U	26
,3,5-trimethylbenzene	108-67-8	U	26
1,2,4-trimethylbenzene	95-63-6	U	26
1,2,3-trimethylbenzene	526-73-8	U	26
1,2,3,4-tetramethylbenzene	488-23-3	U	26

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

82%

64%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

= Dry Weight Basis.

QUALIFIERS:

E = Extrapolated value

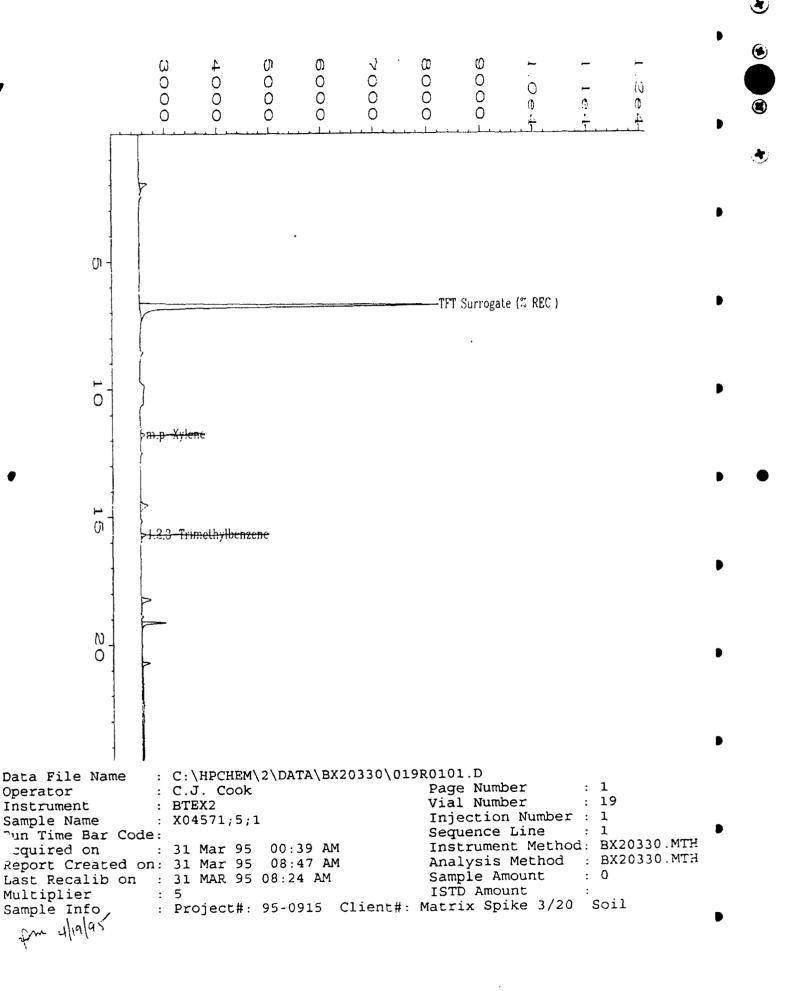
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



BTEX Data Report

Client Sample Number	: Matrix Spike 3/20	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04571DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/20/95	Dilution Factor	: 5.00
Date Received	: 3/22/95	Method	: 8020
Date Extracted/Prepared	: 3/30/95	Matrix	: Soil
Date Analyzed	: 3/31/95,	Lab File No.	: BX2033020
Methanol Extract?	: No	Method Blank No.	: MB033095
% Moisture	: 23.58%		
		Sample	
Compound Name	Cas Number	Concentration*	PQL*
		ug/kg	ug/kg
Benzene	71-43-2	U	26
Toluene	108-88-3	U	26
Ethyl Benzene	100-41-4	U	26
Total Xylenes	1330-20-7	U	26
Chlorobenzene	108-90-7	U	26
1,3,5-trimethylbenzene	108-67-8	U	26
1,2,4-trimethylbenzene	95-63-6	U	26
1,2,3-trimethylbenzene	526-73-8	U	26

80%

64%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

* = Dry Weight Basis.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

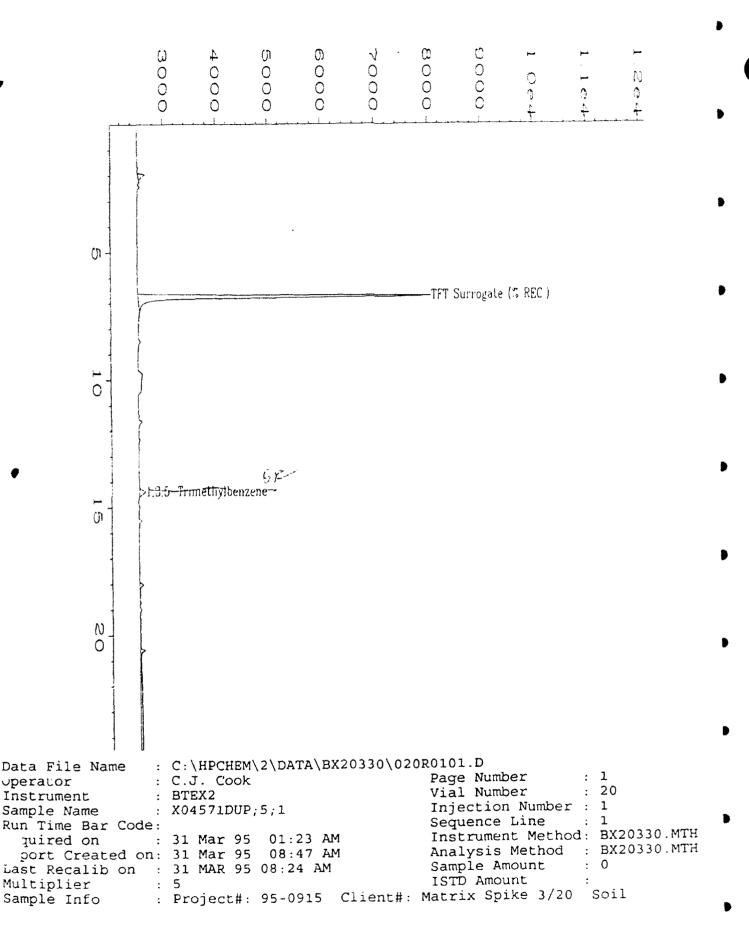
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

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BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Matrix Spike 3/17		MacDill AFB
Lab Sample Number	: X04565	Lab Project No.	: 95-0915
Date Sampled	: 3/17/95	Dilution Factor	: 1.00
-Date Received	: 3/22/95	Method	: 8020
Date Extracted/Prepared	: 3/28/95	Matrix	: Soil
Date Analyzed	: 3/28/95,	Lab File No.	: BX2032816
Methanol Extract?	: No	Method Blank No.	: MEB032895
% Moisture	: 17.63%		
		Sample	

	Sample			
Compound Name	Cas Number	Concentration*	PQL*	
		ug/kg	ug/kg	
Benzene	71-43-2	U	4.9	
Toluene	108-88-3	υ	4.9	
Ethyl Benzene	100-41-4	υ	4.9	
Total Xylenes	1330-20-7	U	4.9	
Chlorobenzene	108-90-7	U	4.9	
1,3,5-trimethylbenzene	108-67-8	U	4.9	
1,2,4-trimethylbenzene	95-63-6	U	4.9	
1,2,3-trimethylbenzene	526-73-8	U	4.9	
1,2,3,4-tetramethylbenzene	488-23-3	υ	4.9	

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

103%

54%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Dry Weight Basis.

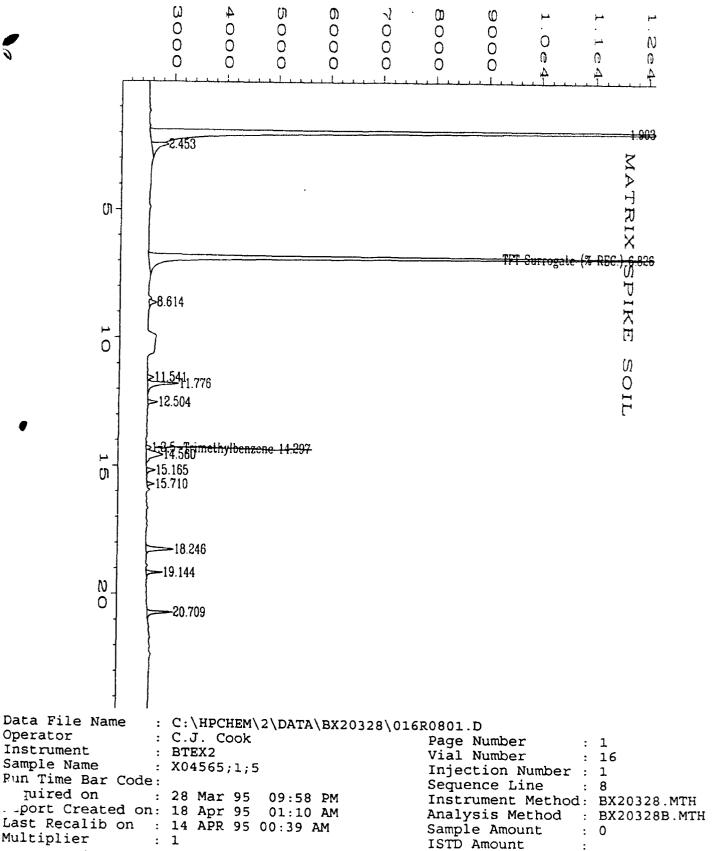
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



pr 4/19/98

Operator

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BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Matrix Spike 3/17		MacDill AFB
Lab Sample Number	: X04565DUP	Lab Project No.	: 95-0915
Date Sampled	: 3/17/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 8020
Date Extracted/Prepared	: 3/28/95	Matrix	: Soil
Date Analyzed	: 3/28/95,	Lab File No.	: BX2032817
Methanol Extract?	: No	Method Blank No.	: MEB032895
% Moisture	: 17.63%		
		Sample	
Compound Name	Cas Number	Concentration*	PQL*
		ug/kg	ug/kg
Benzene	71-43-2	U	4.9
Toluene	108-88-3	U	4.9
Ethyl Benzene	100-41-4	υ	4.9
Total Xylenes	1330-20-7	2.0 JB	4.9
Chlorobenzene	108-90-7	U	4.9
1,3,5-trimethylbenzene	108-67-8	U	4.9
1,2,4-trimethylbenzene	95-63-6	U	4.9
1,2,3-trimethylbenzene	526-73-8	υ	4.9
1,2,3,4-tetramethylbenzene	488-23-3	U	4.9

111%

64%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

* = Dry Weight Basis.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

B = Compound found in blank and sample. Compare blank and sample data.

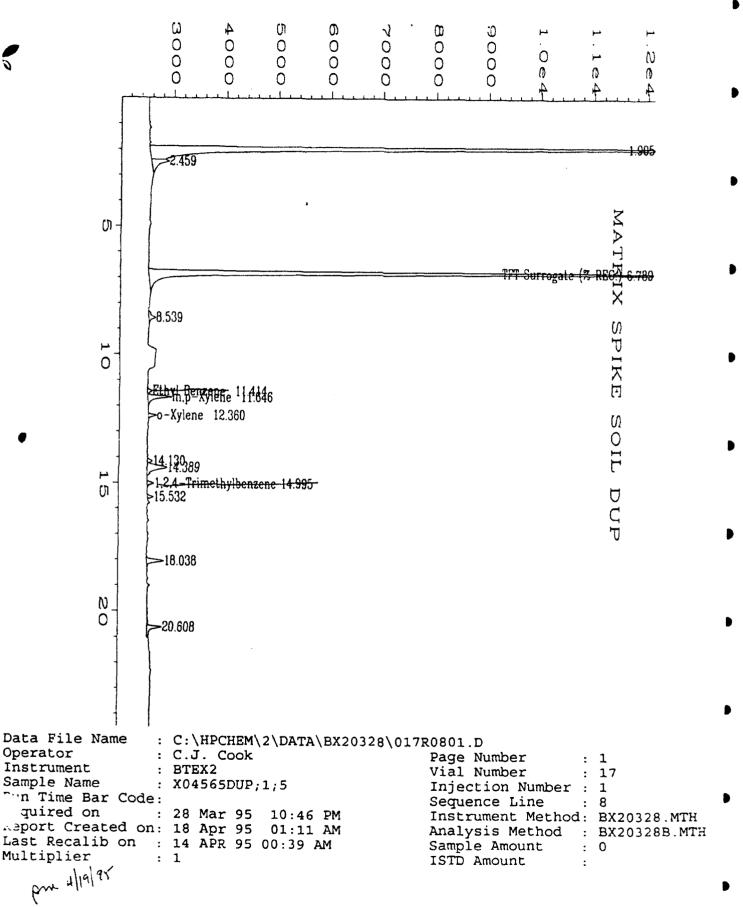
J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst

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BTEX Data Report

Client Sample Number	: Rinsate Blank	Client Project No.	: 722450.21020 MacDill AFB
Lab Sample Number	: X04559	Lab Project No.	: 95-0915
Date Sampled	: 3/17/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/30/95	Matrix	: Water
Date Analyzed	: 3/30/95:	Lab File No.	: BX2033015
Methanol Extract?	: No	Method Blank No.	: MB033095
% Moisture	: NA		

76 MOISTUIE	. NA				
	Sample				
Compound Name	Cas Number	Concentration	PQL		
		ug/L	ug/L		
Benzene	71-43-2	U	4.0		
Toluene	108-88-3	U	4.0		
Ethyl Benzene	100-41-4	U	4.0		
Total Xylenes	1330-20-7	U	4.0		
Chlorobenzene	108-90-7	U	4.0		
1,3,5-trimethylbenzene	108-67-8	U	4.0		
1,2,4-trimethylbenzene	95-63-6	U	4.0		
1,2,3-trimethylbenzene	526-73-8	υ	4.0		
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0		

Surrogate Recovery (α,c.,α-Trifluorotoluene):

93%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

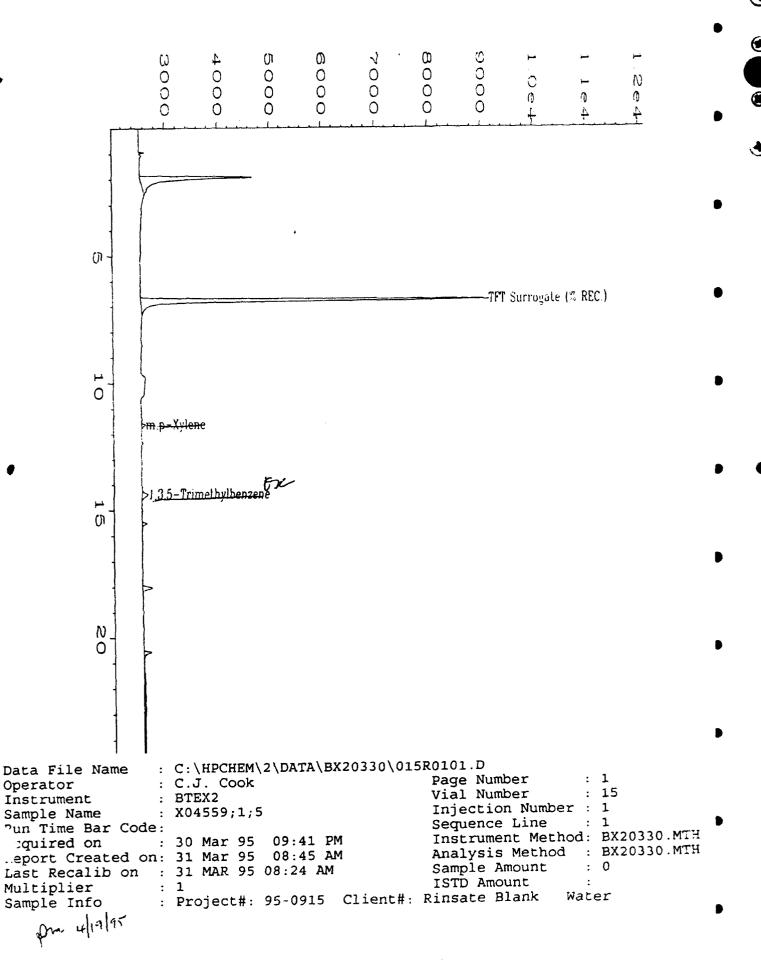
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available/Not Applicable.

Analyst

Approved



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BTEX Data Report

		Client Project No.	: 722450.21020
Client Sample Number	: Trip Blank		MacDill AFB
Lab Sample Number	: X04556	Lab Project No.	: 95-0915
Date Sampled	: 3/17/95	Dilution Factor	: 1.00
Date Received	: 3/22/95	Method	: 602
Date Extracted/Prepared	: 3/27/95	Matrix	: Water
Date Analyzed	: 3/27/95	Lab File No.	: BX2032713
Methanol Extract?	: No	Method Blank No.	: MB032795
% Moisture	NA		
		A	

		Sample		
Compound Name	Cas Number	Concentration	PQL	
·		ug/L	ug/L	
Benzene	71-43-2	U	4.0	
Toluene	108-88-3	U	4.0	
Ethyl Benzene	100-41-4	U	4.0	
Total Xylenes	1330-20-7	U	4.0	
Chlorobenzene	108-90-7	U	4.0	
1,3,5-trimethylbenzene	108-67-8	U	4.0	
1,2,4-trimethylbenzene	95-63-6	U	4.0	
1,2,3-trimethylbenzene	526-73-8	U	4.0	
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0	

Surrogate Recovery (a,a,a-Trifluorotoluene):

95%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

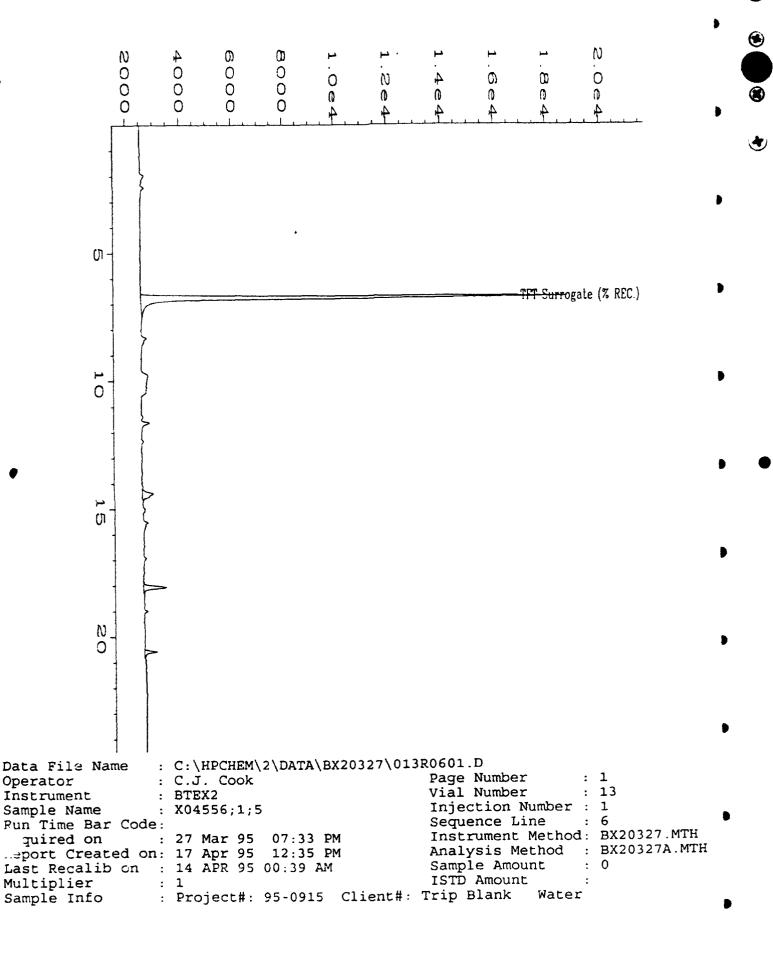
The Xylene PQL is for a single peak.

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

Method Blank Number

: MB032595

Lab Project No.

MacDill AFB

Date Extracted/Prepared

: 3/25/95

: 95-0915

Date Analyzed

: 3/25/95

Dilution Factor

: 1.00

Method Matrix

: 602 : Water

Lab File No.

102%

: BX2032509

70%-130% (QC limits)

Sa	m	nl	6

		Sample	
mpound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
zene	71-43-2	U	4.0
iene	108-88-3	U	4.0
/l Benzene	100-41-4	U	4.0
l Xylenes	1330-20-7	U	4.0
robenzene	108-90-7	U	4.0
5-trimethylbenzene	108-67-8	υ	4.0
4-trimethylbenzene	95-63-6	U	4.0
3-trimethylbenzene	526-73-8	U	4.0
3,4-tetramethylbenzene	488-23-3	U	4.0

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

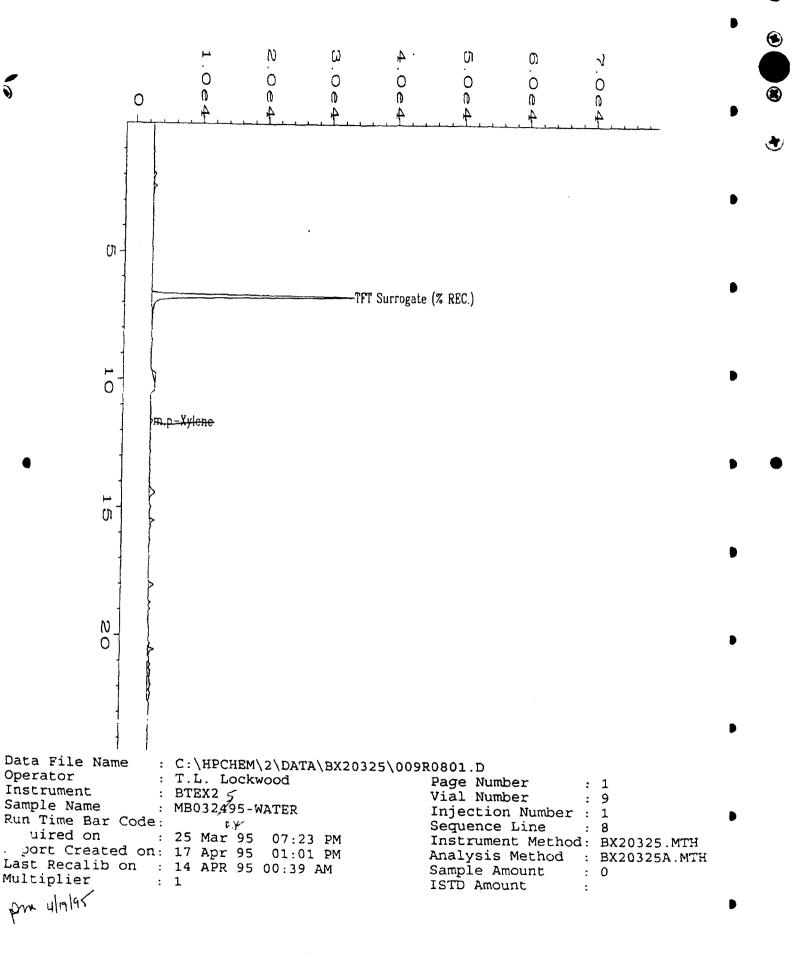
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



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BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

MacDill AFB

Method Blank Number Date Extracted/Prepared : MB032695B : 3/26/95

Lab Project No.

: 95-0915

Date Analyzed

: 3/26/95

Dilution Factor

: 1.00

Method

: 602

Matrix

: Water

Lab File No.

: BX2032610

Sample

	Sample		
Compound Name	Cas Number	Concentration	PQL
·		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
thyl Benzene	100-41-4	υ	4.0
otal Xylenes	1330-20-7	0.4 J	4.0
hlorobenzene	108-90-7	U	4.0
3,5-trimethylbenzene	108-67-8	υ	4.0
2,4-trimethylbenzene	95-63-6	U	4.0
,2,3-trimethylbenzene	526-73-8	U	4.0
,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Surrogate Recovery (α,α,α -Trifluorotoluene):

111%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

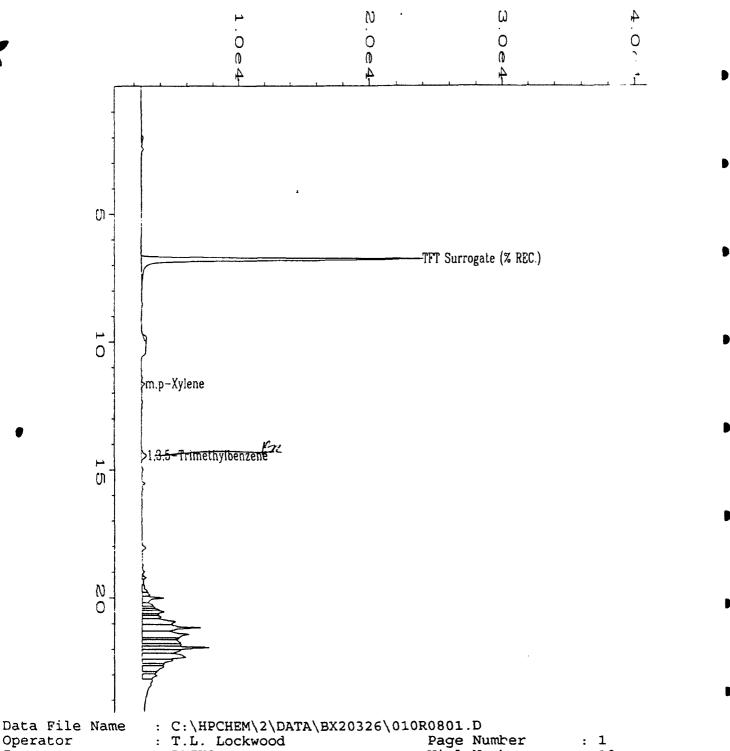
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



Operator Vial Number : 10 Instrument : BTEX2 :-Blank MB032695B Sample Name Injection Number: 1 : 150 PM : 26 Mar 95 : 8 Run Time Bar Code: Sequence Line ruired on 06:45 PM Instrument Method: BX20326.MTH ort Created on: 17 Apr 95 02:05 PM Analysis Method : BX20326A.MTH Last Recalib on : 14 APR 95 00:39 AM Sample Amount : 0 Multiplier ISTD Amount

BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

MacDill AFB

Method Blank Number
Date Extracted/Prepared

: MB032795

Lab Project No.

: 95-0915

Date Analyzed

: 3/27/95 : 3/27/95

Dilution Factor

: 1.00

Method

: 602

Matrix

: Water

Lab File No.

: BX2032709

Sample

		Sample	
Compound Name	Cas Number	Concentration	PQL
•		ug/L	ug/L
Benzene	71-43-2	Ų	4.0
Toluene	108-88-3	U	4.0
thyl Benzene	100-41-4	U	4.0
otal Xylenes	1330-20-7	U	4.0
lorobenzene	108-90-7	U	4.0
3,5-trimethylbenzene	108-67-8	U	4.0
2,4-trimethylbenzene	95-63-6	U	4.0
2,3-trimethylbenzene	526-73-8	U	4.0
2,3,4-tetramethylbenzene	488-23-3	U	4.0

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

98%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene PQL is for a single peak.

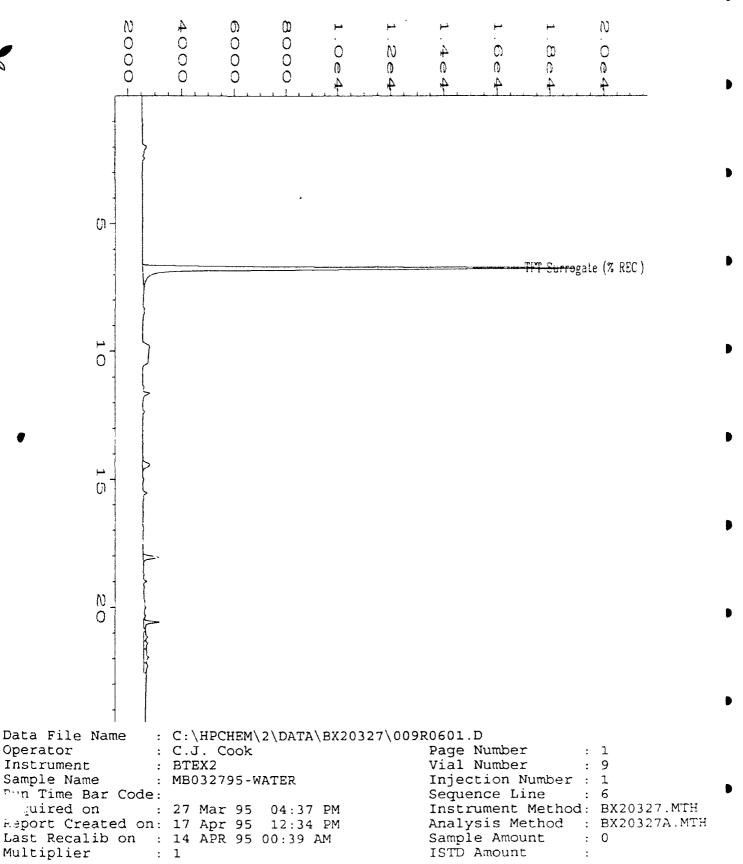
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



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BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

Method Blank Number

: MB032895

MacDill AFB

Date Extracted/Prepared

: 3/28/95

Lab Project No.

: 95-0915

Date Analyzed

: 3/28/95

Dilution Factor

: 1.00

Method

: 602

Matrix

: Water

Lab File No.

: BX2032809

		Sample		
Compound Name	Cas Number	Concentration	PQL	
•		ug/L	ug/L	
Benzene	71-43-2	U	4.0	
oluene	108-88-3	U	4.0	
yl Benzene	100-41-4	υ	4.0	
al Xylenes	1330-20-7	U	4.0	
probenzene	108-90-7	υ	4.0	
5-trimethylbenzene	108-67-8	U	4.0	
4-trimethylbenzene	95-63-6	υ	4.0	
,3-trimethylbenzene	526-73-8	υ	4.0	
,3,4-tetramethylbenzene	488-23-3	U	4.0	

Surrogate Recovery (a,a,a-Trifluorotoluene):

61% ×

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

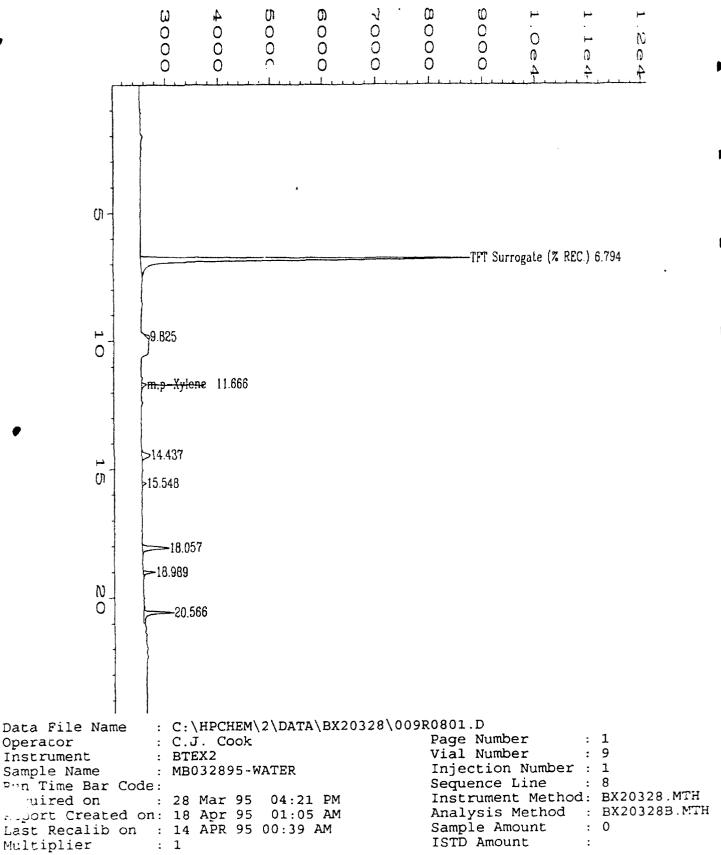
* SEE MEBOBDERS ass.

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).
- PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



22x 4/19/95

Operator

BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

MacDill AFB

Method Blank Number Date Extracted/Prepared : MEB032895 : 3/28/95

Lab Project No.

: 95-0915

Date Analyzed

: 3/29/95

Dilution Factor

Method

: 1.00 : 8020

Matrix

: MeOH/Water

Lab File No.

: BX2032820

Sam	bie
oncen	trat
	/#

		Sample	
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	U	4.0
bluene	108-88-3	υ	4.0
hyl Benzene	100-41-4	υ	4.0
tal Xylenes	1330-20-7	0.8 J	4.0
orobenzene	108-90-7	U	4.0
,5-trimethylbenzene	108-67-8	U	4.0
2,4-trimethylbenzene	95-63-6	υ	4.0
2,3-trimethylbenzene	526-73-8	U	4.0
2,3,4-tetramethylbenzene	488-23-3	U	4.0

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

97%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

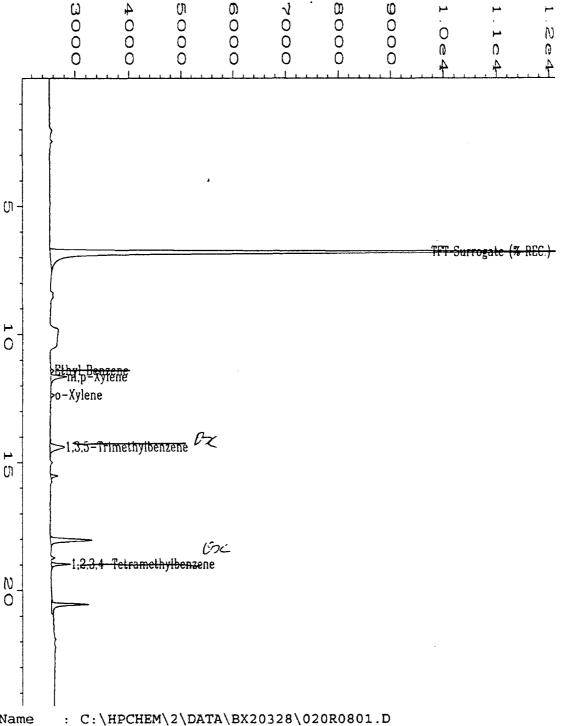
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

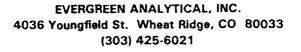


Data File Name : C.J. Cook Page Number Operator : 20 : BTEX2 Vial Number Instrument Injection Number : 1 Sample Name : MEB032895 'n Time Bar Code: Sequence Line : 8 Instrument Method: BX20328.MTH : 29 Mar 95 01:06 AM quired on

Last Recalib on : 14 APR 95 00:39 AM Analysis Method : BX20328B.MTH Sample Amount : 0

Last Recallb on : 14 APR 95 00:39 AM Sample Amount : Multiplier : 1 ISTD Amount :

pm 4/19/95



BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

: MEB032995

MacDill AFB

Method Blank Number Date Extracted/Prepared

: 3/29/95

Lab Project No.

: 95-0915

Date Analyzed

Dilution Factor

: 1.00

: 3/30/95

Method

: 8020

Matrix

: MeOH/Water

Lab File No.

: BX2032923

	Sample		
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	0.6 J	4.0
Chlorobenzene	108-90-7	υ	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Surrogate Recovery (a,a,a-Trifluorotoluene):

79%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

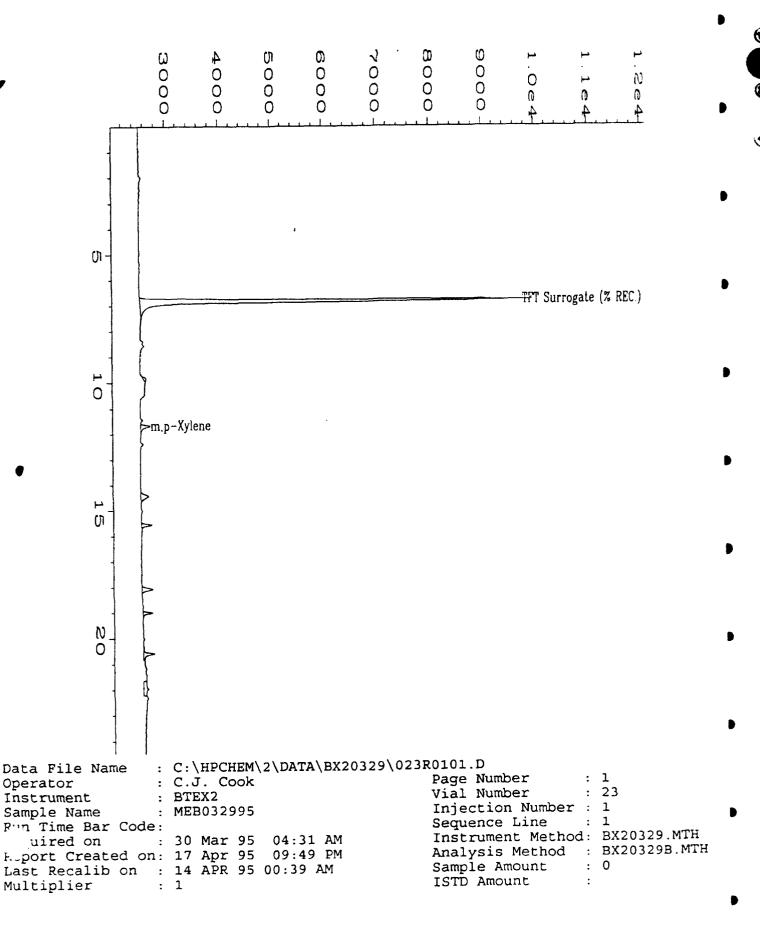
QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

MacDill AFB

Method Blank Number Date Extracted/Prepared : MB032995 : 3/29/95

Lab Project No.

: 95-0915

Date Analyzed

: 3/29/95

Dilution Factor

: 1.00

Method Matrix

: 8020/602

: Water

Lab File No.

: BX2032909

	Sample		
Compound Name	Cas Number	Concentration	PQL
·		ug/L	ug/L
Benzene	71-43-2	U	4.0
Toluene	108-88-3	U	4.0
Ethyl Benzene	100-41-4	U	4.0
Total Xylenes	1330-20-7	0.8 J	4.0
Chlorobenzene	108-90-7	U	4.0
1,3,5-trimethylbenzene	108-67-8	U	4.0
1,2,4-trimethylbenzene	95-63-6	U	4.0
1,2,3-trimethylbenzene	526-73-8	U	4.0
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0

Surrogate Recovery (\alpha,\alpha,\alpha-Trifluorotoluene):

101%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

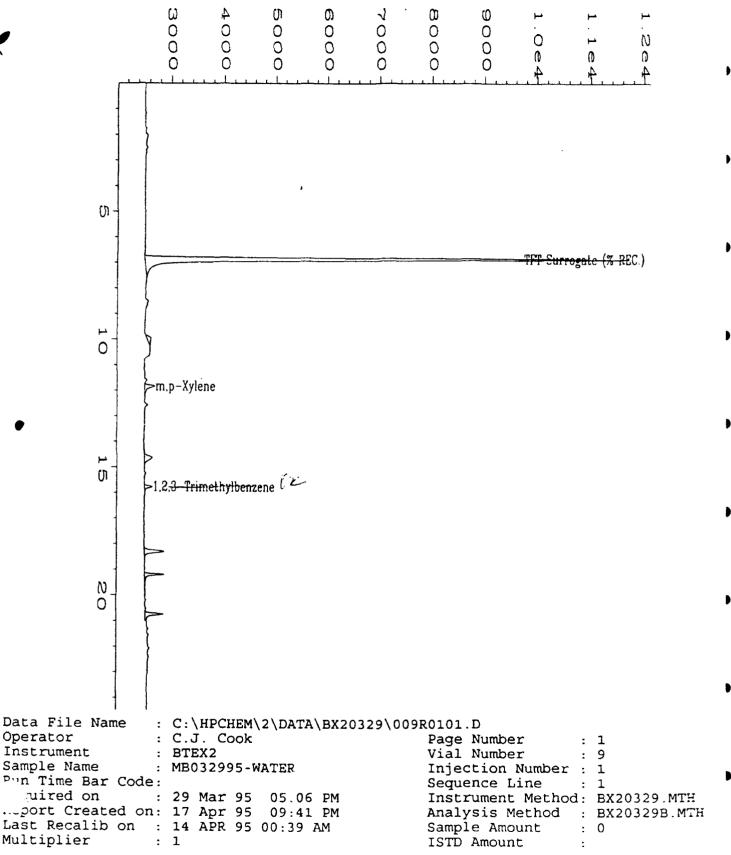
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.



Operator

BTEX Data Report Method Blank Report

: MB033095

Client Project No.

: 722450.21020

Method Blank Number

Lab Project No.

MacDill AFB

Date Extracted/Prepared Date Analyzed

: 3/30/95

: 95-0915

: 3/30/95

Dilution Factor Method

: 1.00

Matrix

: 602 : Water

Lab File No.

: NV-R0115

	Sample				
Compound Name	Cas Number	Concentration	PQL		
•		ug/L	ug/L		
Benzene	71-43-2	U	4.0		
Toluene	108-88-3	U	4.0		
Ethyl Benzene	100-41-4	U	4.0		
Total Xylenes	1330-20-7	υ	4.0		
Chlorobenzene	108-90-7	U	4.0		
1,3,5-trimethylbenzene	108-67-8	U	4.0		
1,2,4-trimethylbenzene	95-63-6	U	4.0		
1,2,3-trimethylbenzene	526-73-8	U	4.0		
1,2,3,4-tetramethylbenzene	488-23-3	U	4.0		

Surrogate Recovery $(\alpha,\alpha,\alpha$ -Trifluorotoluene):

91%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

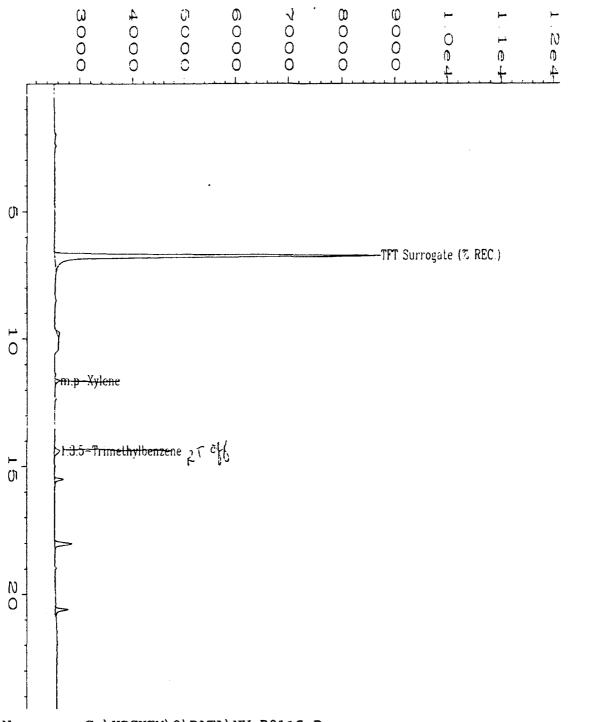
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



: C:\HPCHEM\2\DATA\NV-R0115.D Data File Name Operator Page Number Vial Number BTEX2 Instrument Injection Number : Sample Name : MB033095 - VATEL n Time Bar Code: Sequence Line : 30 Mar 95 05:18 PM Instrument Method: BX20330.MTH quired on : BX20330.MTH Report Created on: 31 Mar 95 08:50 AM Analysis Method Sample Amount : 0 Last Recalib on : 31 MAR 95 08:24 AM ISTD Amount Multiplier : 1

pm 4/19/95

BTEX Data Report Method Blank Report

Client Project No.

: 722450.21020

: MEB033095

MacDill AFB

Method Blank Number Date Extracted/Prepared

: 3/30/95

Lab Project No.

: 95-0915

Date Analyzed

: 3/30/95

Dilution Factor

: 1.00

Method

Matrix

: 8020

: MeOH/Water

Lab File No.

: BX2033017

Sample	
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		Gampio	
Compound Name	Cas Number	Concentration	PQL
		ug/L	ug/L
enzene	71-43-2	U	4.0
uene	108-88-3	U	4.0
yl Benzene	100-41-4	U	4.0
al Xylenes	1330-20-7	U	4.0
orobenzene	108-90-7	U	4.0
,5-trimethylbenzene	108-67-8	U	4.0
,4-trimethylbenzene	95-63-6	U	4.0
2,3-trimethylbenzene	526-73-8	2.1 J	4.0
2,3,4-tetramethylbenzene	488-23-3	U	4.0

Surrogate Recovery (α,α,α-Trifluorotoluene):

86%

70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene PQL is for a single peak.

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

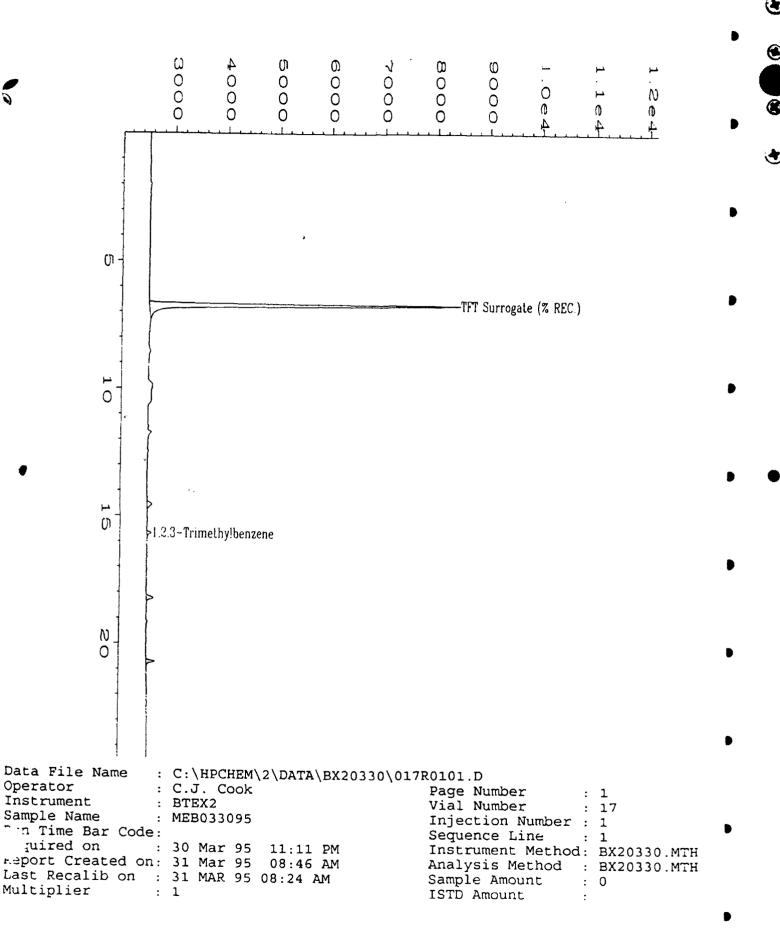
B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Practical Quantitation Limit (PQL).

PQL = Practical Quantitation Limit. The PQL is equal to the dilution factor multiplied by ten times the Method Detection Limit as determined by EPA SW846, Vol. 1B, Part II, pa. 8000-14.

NA = Not available.

Analyst



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BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS032595 Dilution Factor : 1.00

Date Extracted/Prepared : 3/25/95 Method : 602

Date Analyzed : 3/25/95 Matrix : Water

Spike Amount (ug/L) : 20.0 Lab File No. : BX2032511

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.4	77.0	71.0-119.0
Toluene	108-88-3	15.7	78.5	73.0-111.0
Chlorobenzene	108-90-7	16.5	82.5	64.0-119.0
Ethyl Benzene	100-41-4	15.9	79.5	75.0-114.0
m,p-Xylene	108-38-3	16.8	84.0	75.0-114.0
o-Xylene	106-42-3 95-47-6	15.7	78.5	64.0-11
1,3,5-Trimethylbenzene	108-67-8	16.9	84.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.8	89.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.2	101.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	16.6	83.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	97%	70%-130%	(OC limits)

QUALIFIERS:

E = Extrapolated value

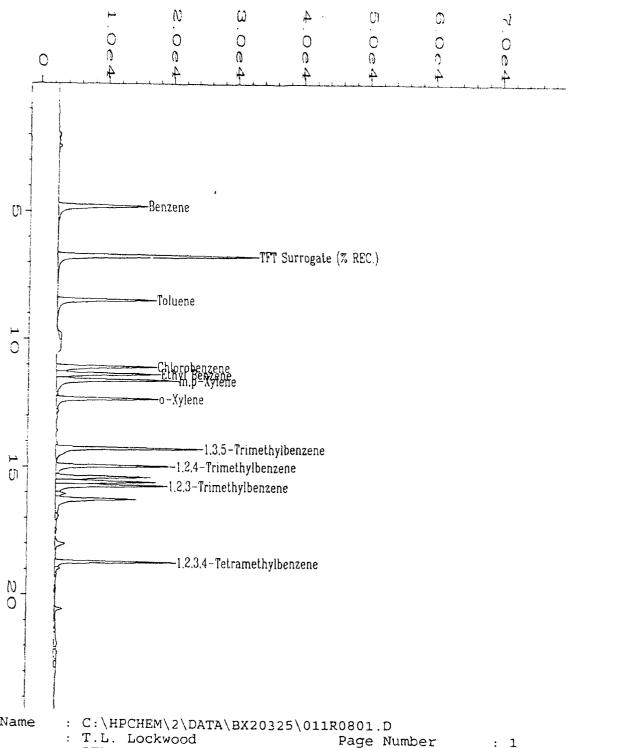
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst



Data File Name Operator Page Number Instrument : BTEX2 Vial Number Sample Name : LCS032,495 Injection Number: 1 Run Time Bar Code: 5 HK Sequence Line : 8 guired on : 25 Mar 95 08:54 PM Instrument Method: BX20325.MTH . Fort Created on: 17 Apr 95 01:02 PM Last Recalib on : 14 APR 95 00:39 AM Analysis Method : BX20325A.MTH Sample Amount : 0 Multiplier : 1 ISTD Amount

.

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number : LCS032695 Date Extracted/Prepared : 3/26/95 : 3/26/95 Date Analyzed

Dilution Factor Method

: 1.00 : 602 : Water

Spike Amount (ug/L)

: 20.0

Lab File No.

Matrix

: BX2032611

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.2	81.0	71.0-119.0
Toluene	108-88-3	16.4	82.0	73.0-111.0
Chlorobenzene	108-90-7	17.0	85.0	64.0-119.0
Ethyl Benzene	100-41-4	16.9	84.5	75.0-114.0
m,p-Xylene	108-38-3 106-42-3	18.2	91.0	75.0-114.0
o-Xylene	95-47-6	16.6	83.0	64.0-1
1,3,5-Trimethylbenzene	108-67-8	16.6	83.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	18.0	90.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	21.4	107.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.5	87.5	50.0-150.0
Surrogate Recovery (a,a,a-Trifluorotoluene):		101%	70%-130%	(QC limits)

QUALIFIERS:

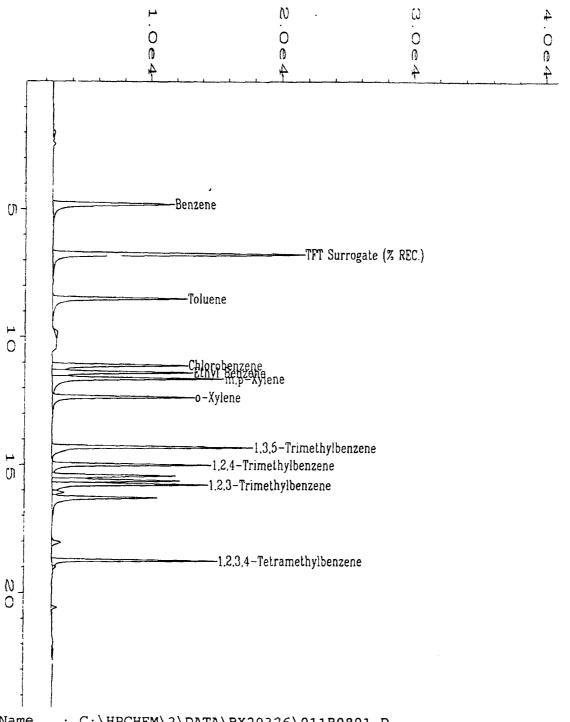
E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.



(3)

Data File Name : C:\HPCHEM\2\DATA\BX20326\011R0801.D Operator : T.L. Lockwood Page Number Instrument Vial Number : BTEX2 : 11 Sample Name : LCS032695 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 uired on : 26 Mar 95 07:29 PM Instrument Method: BX20326.MTH ort Created on: 17 Apr 95 02:06 PM Analysis Method : BX20326A.MTH

Last Recalib on : 14 APR 95 00:39 AM Sample Amount : 0 Multiplier : 1 ISTD Amount :

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number: LCS032795Dilution Factor: 1.00Date Extracted/Prepared: 3/27/95Method: 602Date Analyzed: 3/27/95Matrix: Water

Spike Amount (ug/L) : 20.0 Lab File No. : BX2032710

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	17.1	85.5	71.0-119.0
Toluene	108-88-3	16.6	83.0	73.0-111.0
Chlorobenzene	108-90-7	18.1	90.5	64.0-119.0
Ethyl Benzene	100-41-4	17.1	85.5	75.0-114.0
m,p-Xylene	108-38-3 106-42-3	18.3	91.5	75.0-114.0
o-Xylene	95-47-6	16.9	84.5	64.0-11
1,3,5-Trimethylbenzene	108-67-8	17.8	89.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	18.2	91.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.2	101.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	. 488-23-3	18.4	92.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	99%	70%-130%	(QC limits)

QUALIFIERS:

E = Extrapolated value

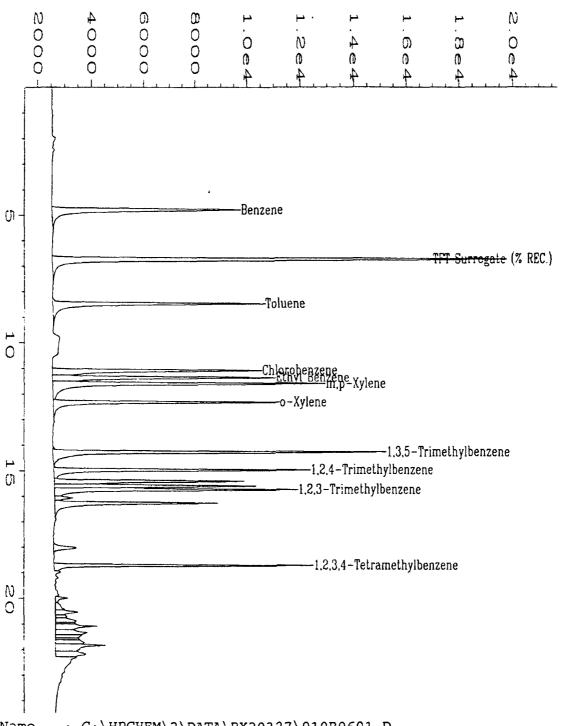
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst



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Data File Name : C:\HPCHEM\2\DATA\BX20327\010R0601.D Operator : C.J. Cook Page Number Instrument Vial Number : BTEX2 Sample Name : LCS032795 Injection Number: 1 Run Time Bar Code: Sequence Line : 6 ruired on : 27 Mar 95 05:21 PM Instrument Method: BX20327.MTH Analysis Method : BX20327A.MTH . port Created on: 17 Apr 95 12:35 PM

Last Recalib on : 14 APR 95 00:39 AM Sample Amount : 0 Multiplier : 1 ISTD Amount :

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number: LCS032895Dilution Factor: 1.00Date Extracted/Prepared: 3/28/95Method: 602Date Analyzed: 3/28/95Matrix: Water

Spike Amount (ug/L) : 20.0 Lab File No. : BX2032810

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	15.0	75.0	71.0-119.0
Toluene	108-88-3	16.3	81.5	73.0-111.0
Chlorobenzene	108-90-7	15.5	77.5	64.0-119.0
Ethyl Benzene	100-41-4	16.5	82.5	75.0-114.0
m,p-Xylene	108-38-3	18.0	90.0	75.0-114.0
o-Xylene	106-42-3 95-47-6	16.6	83.0	64.0-1
1,3,5-Trimethylbenzene	108-67-8	15.9	79.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	17.7	88.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	20.6	103.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.2	86.0	50.0-150.0
Surrogate Recovery (a,a,a-Trifluor	otoluene):	107%	70%-130%	(OC limits)

QUALIFIERS:

E = Extrapolated value

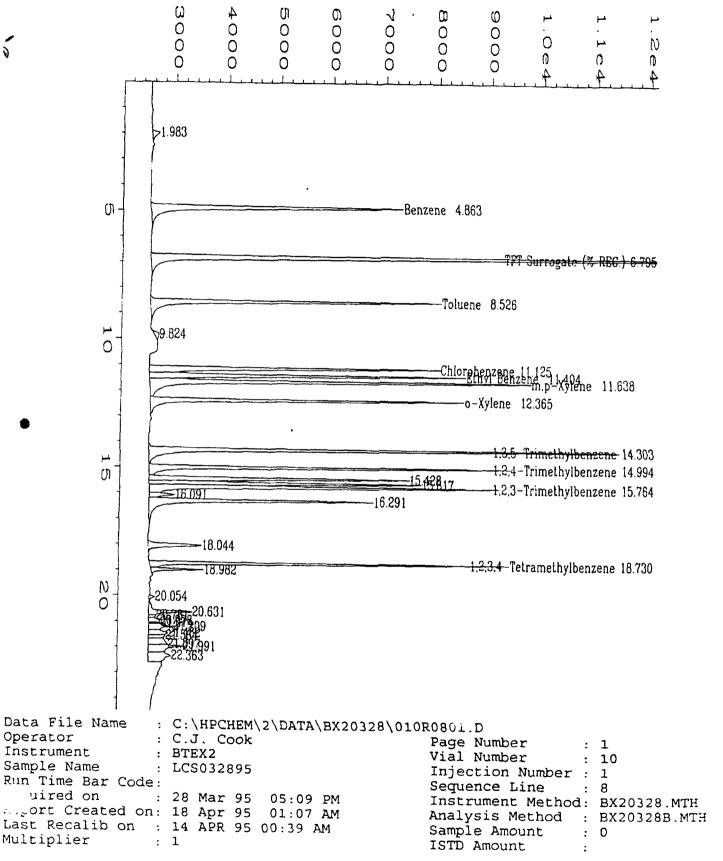
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst



Operator

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number
Date Extracted/Prepared

: LCS032995 : 3/29/95

Dilution Factor Method : 1.00 : 602

: Water

Date Analyzed
Spike Amount (ug/L)

: 3/29/95 : 20.0

Matrix Lab File No.

: BX2032910

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	18.3	91.5	71.0-119.0
Toluene	108-88-3	18.1	90.5	73.0-111.0
Chlorobenzene	าง8-90-7	19.8	99.0	64.0-119.0
Ethyl Benzene	100-41-4	17.7	88.5	75.0-114.0
m,p-Xylene	108-38-3	18.8	94.0	75.0-114.0
o-Xylene	106-42-3 95-47-6	18.7	93.5	64.0-11
1,3,5-Trimethylbenzene	108-67-8	17.8	89.0	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	20.3	101.5	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	25.1	125.5	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	20.1	100.5	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	94%	70%-130%	(OC limits)

QUALIFIERS:

E = Extrapolated value

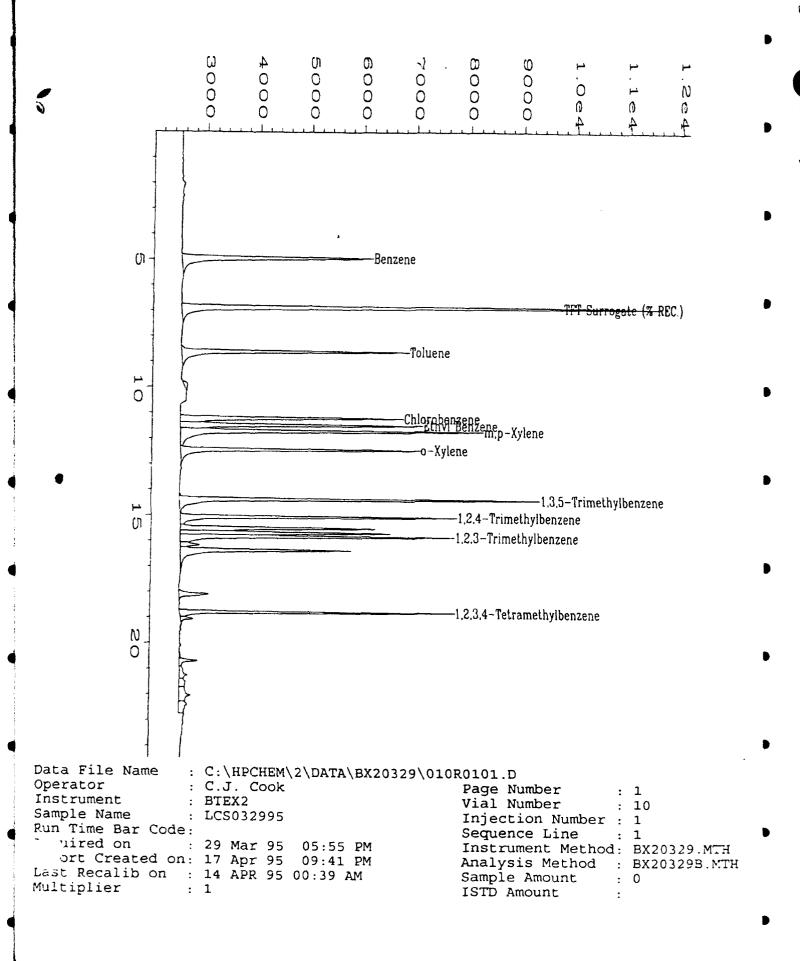
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst



BTEX Data Report Laboratory Control Sample (LCS)

LCS Number: LCS033095Dilution Factor: 1.00Date Extracted/Prepared: 3/30/95Method: 602Date Analyzed: 3/30/95Matrix: Water

Spike Amount (ug/L) : 20.0 Lab File No. : BX2033010

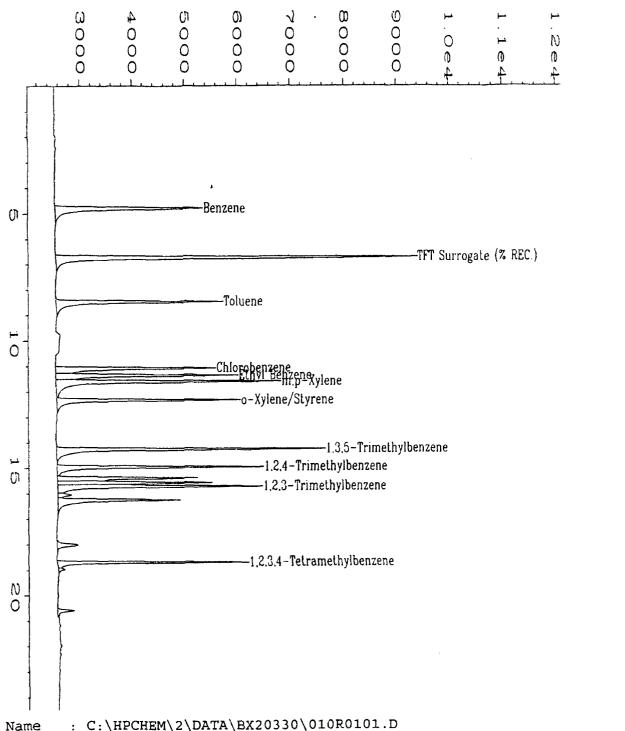
Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	16.9	84.5	71.0-119.0
Toluene	108-88-3	17.2	86.0	73.0-111.0
Chiorobenzene	108-90-7	17.3	86.5	64.0-119.0
Ethyl Benzene	100-41-4	17.8	89.0	75.0-114.0
m,p-Xylene	108-38-3 106-42-3	19.1	95.5	75.0-114.0
o-Xylene	95-47-6	17.2	86.0	64.0-11
1,3,5-Trimethylbenzene	108-67-8	18.1	90.5	50.0-150.0
1,2,4-Trimethylbenzene	95-63-6	18.4	92.0	50.0-150.0
1,2,3-Trimethylbenzene	526-73-8	22.4	112.0	50.0-150.0
1,2,3,4-Tetramethylbenzene	488-23-3	17.4	87.0	50.0-150.0
Surrogate Recovery (α,α,α-Trifluor	otoluene):	95%	70%-130%	(QC limits)

QUALIFIERS:

- E = Extrapolated value
- U = Compound analyzed for, but not detected.
- B = Compound found in blank and sample. Compare blank and sample data.
- J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst [/]



Data File Name Page Number : C.J. Cook Operator Vial Number : 10 : BTEX2 Instrument Injection Number : 1 : LCS033095 Sample Name : 1 Sequence Line Time Bar Code: Instrument Method: BX20330.MTH : 30 Mar 95 06:02 PM : BX20330.MTH ...port Created on: 31 Mar 95 08:44 AM Analysis Method : 0 Last Recalib on : 31 MAR 95 08:24 AM Sample Amount ISTD Amount Multiplier



TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS032995

Matrix

Method Number

: WATER

Date Prepared

: 3/29/95

: 8030/MOD.8015

Date Analyzed

: 3/29/95

Sequence Number

: TVH19

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	2.00	1.91	96%	70%-130%

QUALIFIERS

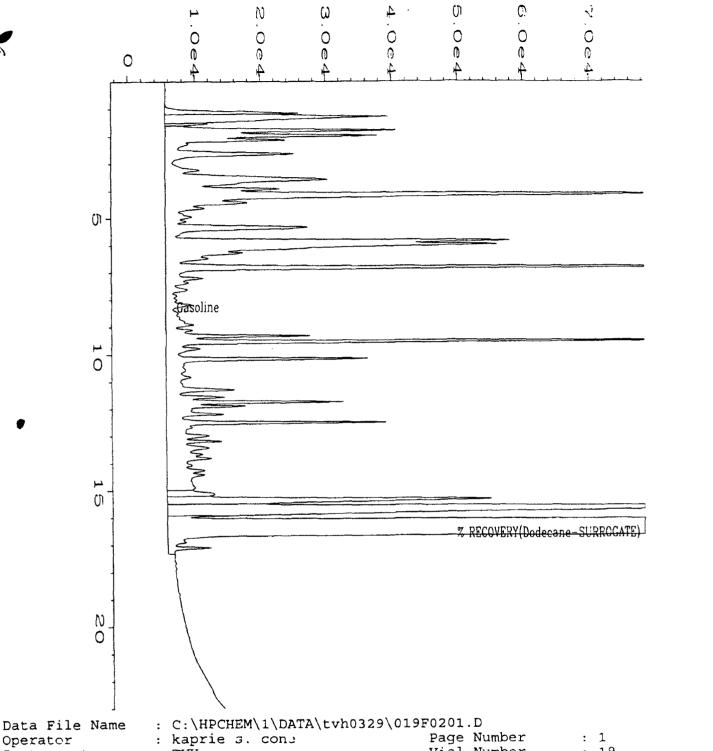
U = TVH analyzed for but not detected.

B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst



Operator Vial Number : 19 : TVH Instrument Injection Number : : LCS032995 1 Sample Name Sequence Line n Time Bar Code: Instrument Method: TVH0329.MTH : 29 Mar 95 09:26 PM guired on Analysis Method : TVH0329.MTH Report Created on: 29 Mar 95 09:50 PM Sample Amount Last Recalib on : 29 Mar 95 08:06 PM ISTD Amount Multiplier



TOTAL VOLATILE HYDROCARBONS (TVH-GASOLINE)

Date Sampled

: 3/20,21/95

Client Project Number

: 722450.21020/MACDILL

Date Received Date Prepared

: 3/22/95

Lab Project Number

: 95-0915

: 3/29/95

Matrix

: Water

Date Analyzed

: 3/29,30/95

Method Number

: 5030/Mod.8015

Evergreen Sample #	Client Sample #	Surrogate Recovery	TVH mg/L	RL mg/L
MB032995	METHOD BLANK	100%	U	0.1
MB033095	METHOD BLANK	100%	U	0.1
X04546	24MP-5S	97%	U	0.1
X04547	24MP-3S	97%	U	0.1
X04548	24MP-3D	82%	U	0.1
X04549	24MP-8D	87%	U	0.1
X04550	24MP-8S	98%	U	0.1
X04551	MD24-9	87%	U	0.1
X04552	MD24-10A	100%	U	0.1
X04553	MD24-10	88%	U	0.1
X04554	MD24-7	89%	U	0.1
X04555	MD24-7 (DUP)	87%	U	0.1

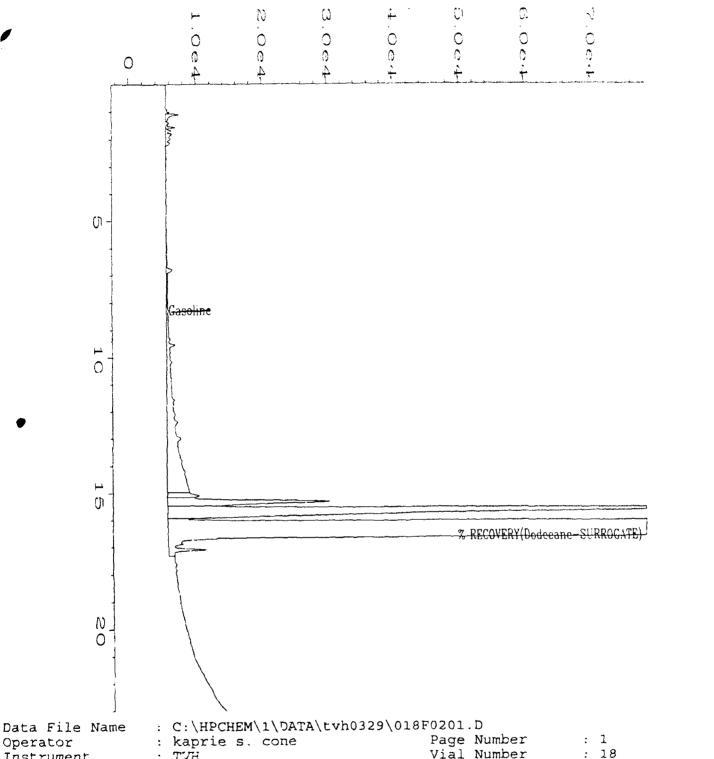
QUALIFIERS

U = TVH analyzed for but not detected.

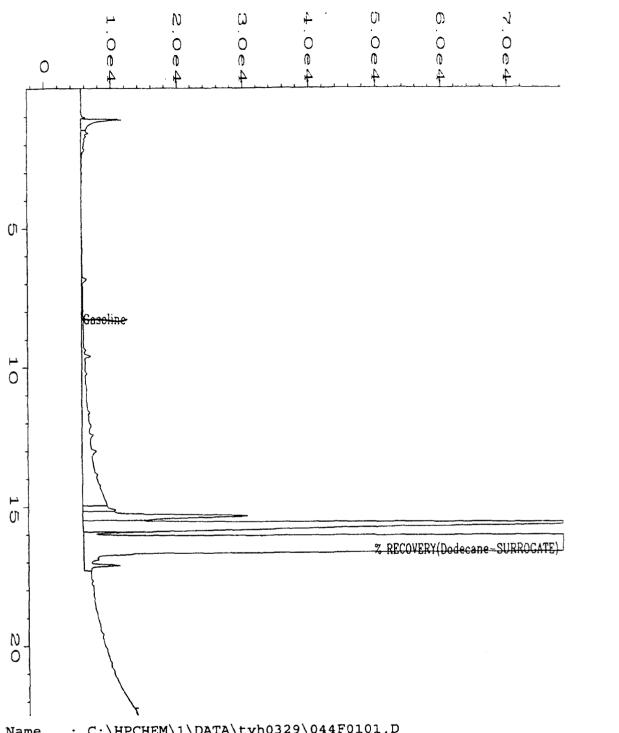
B = TVH found in blank as well as sample.

E = Extrapolated value.

RL = Reporting Limit.

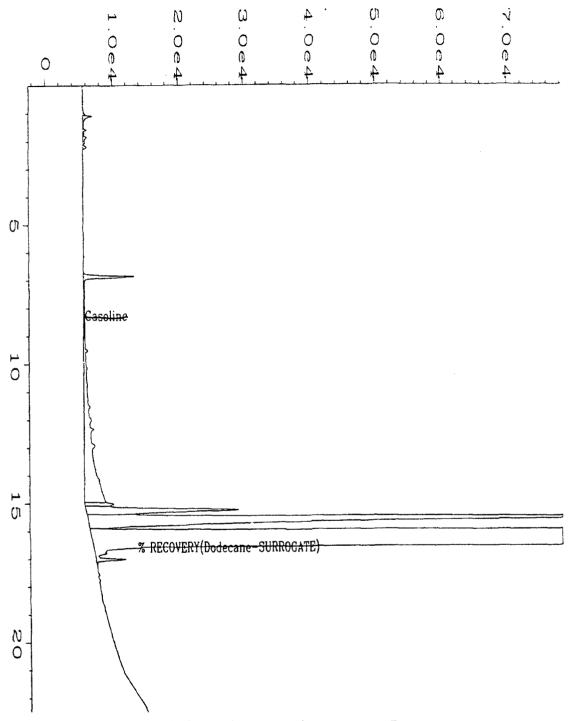


Operator Vial Number : 18 Instrument : TVH Injection Number : 1 : MB032995 Sample Name : 2 Sequence Line 1 Time Bar Code: Instrument Method: TVH0329.MTH : 29 Mar 95 08:52 PM ...quired on Analysis Method : TVH0329.MTH Peport Created on: 29 Mar 95 09:15 PM Sample Amount : 0 Last Recalib on : 29 Mar 95 08:06 PM ISTD Amount Multiplier pm 4/17/95

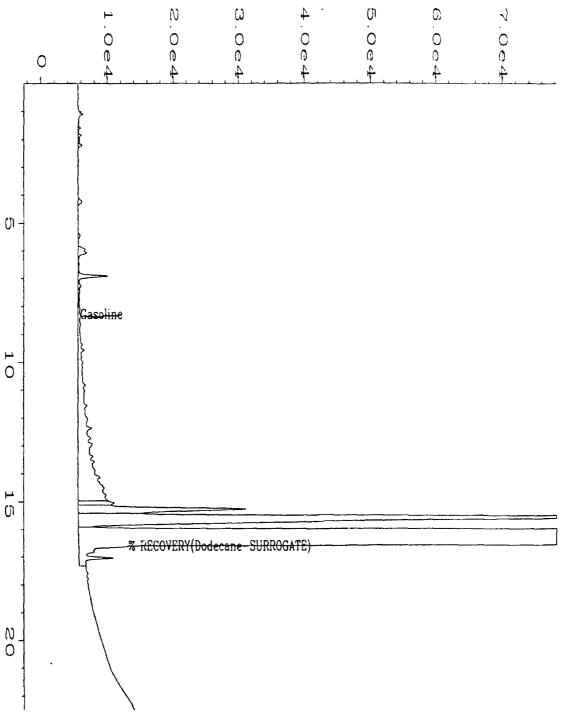


: C:\HPCHEM\1\DATA\tvh0329\044F0101.D Data File Name Page Number Operator : kaprie s. cone Vial Number Instrument : TVH Injection Number: 1 Sample Name : MB033095 Sequence Line Run Time Bar Code: Instrument Method: TVH032. Acquired on : 30 Mar 95 11:35 AM Analysis Method : TVH0329.MTH Report Created on: 30 Mar 95 11:58 AM Sample Amount : 0 Last Recalib on : 29 MAR 95 08:06 PM ISTD Amount Multiplier : 1

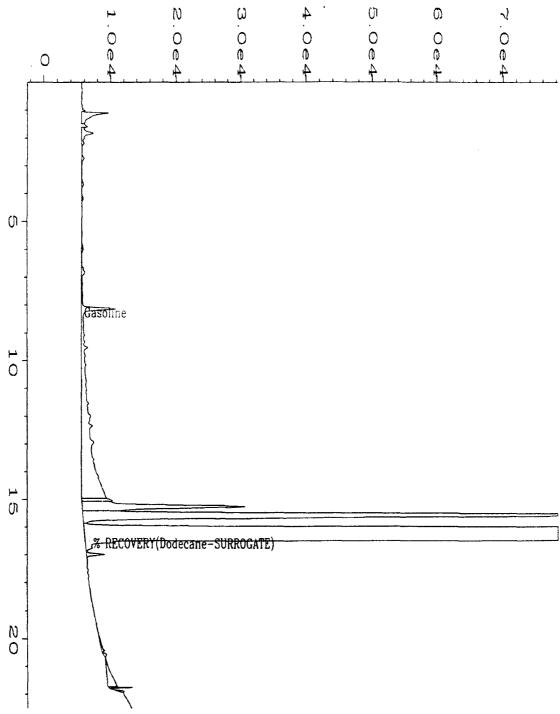
pm 4/17/95



```
: C:\HPCHEM\1\DATA\tvh0329\033F0101.D
Data File Name
                 : kaprie s. cone
                                                Page Number
Operator
                                                Vial Number
                                                                 : 33
                 : TVH
Instrument
                                                Injection Number: 1
                 : X04546; 1; 5
Sample Name
                                                Sequence Line
                                                                 : 1
    Time Bar Code:
                                                Instrument Method: TVH0329.MTH
. quired on
                : 30 Mar 95 05:23 AM
                                                Analysis Method : TVH0329.MTH
Report Created on: 30 Mar 95 05:46 AM
Last Recalib on : 29 MAR 95 08:06 PM
                                                Sample Amount
                                                                 : 0
                                                ISTD Amount
Multiplier
                 : 1
                 : 95-0915; PARSONS ES; CLIENT # 24MP-5S; 5 ML
Sample Info
pm 4/17/95
                   WATER
```

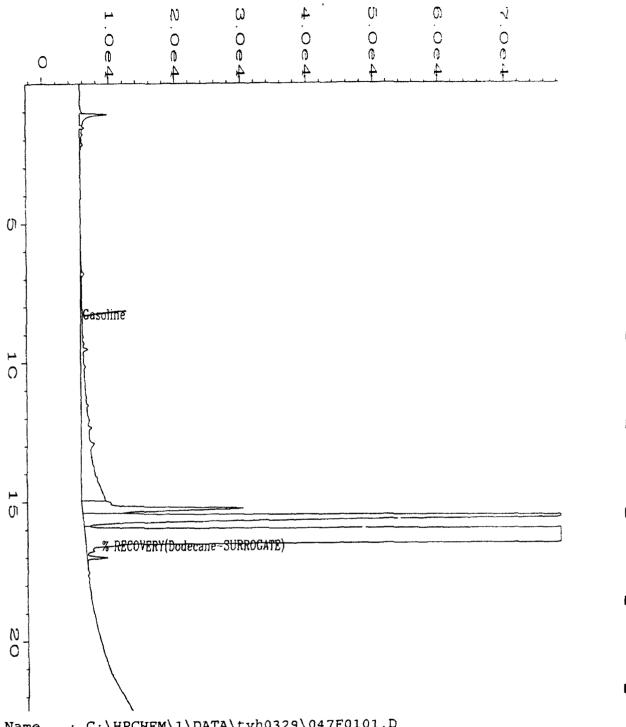


```
Data File Name
                 : C:\HPCHEM\1\DATA\tvh0329\034F0101.D
Operator
                 : kaprie s. cone
                                                 Page Number
Instrument
                                                 Vial Number
                 : TVH
Sample Name
                 : X04547; 1; 5
                                                 Injection Number: 1
Run Time Bar Code:
                                                 Sequence Line
                                                                  : 1
Acquired on
                 : 30 Mar 95 05:57 AM
                                                 Instrument Method: TVH032'
Report Created on: 30 Mar 95 06:20 AM
                                                 Analysis Method : TVH0329.m.T-
Last Recalib on : 29 MAR 95 08:06 PM
                                                 Sample Amount
Multiplier
                                                 ISTD Amount
Sample Info
                  : 95-0915; PARSONS ES; CLIENT # 24MP-3S; 5 ML
pm 4/17/95
                   WATER
```



```
Data File Name
                 : C:\HPCHEM\1\DATA\tvh0329\046F0101.D
Operator
                                                Page Number
                 : kaprie s. cone
                                                                 : 1
                 : TVH
                                                Vial Number
                                                                 : 46
Instrument
Sample Name
                 : X04548; 1; 5
                                                Injection Number: 1
r n Time Bar Code:
                                                Sequence Line
  juired on
                 : 30 Mar 95 12:56 PM
                                                Instrument Method: TVH0329.MTH
Report Created on: 30 Mar 95 01:22 PM
                                                Analysis Method : TVH0329.MTH
Last Recalib on : 29 MAR 95 08:06 PM
                                                Sample Amount
                                                                 : 0
Multiplier
                                                ISTD Amount
Sample Info
                 : 95-0915; PARSONS ES; CLIENT # 24MP-3D; 5 ML
```

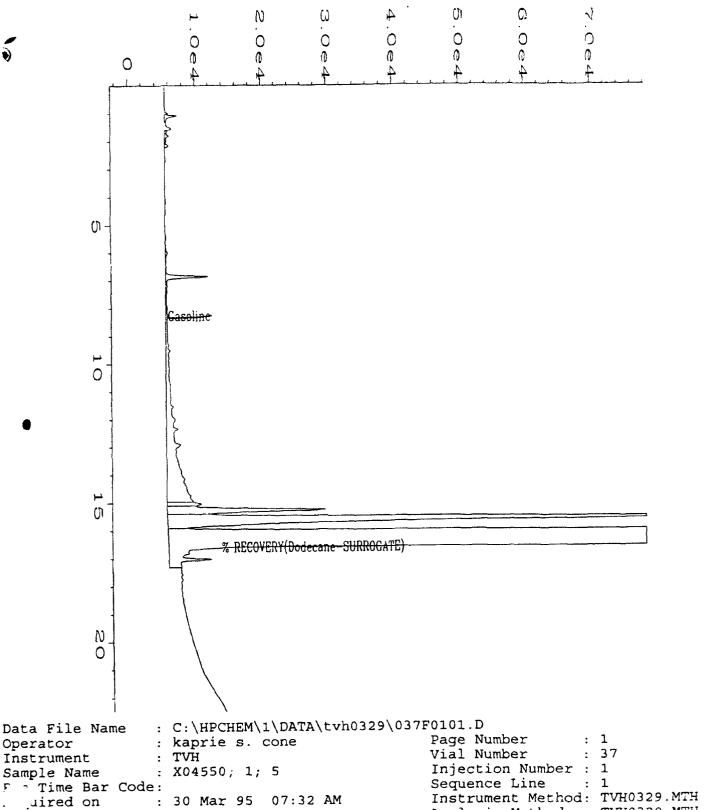
WATER



4

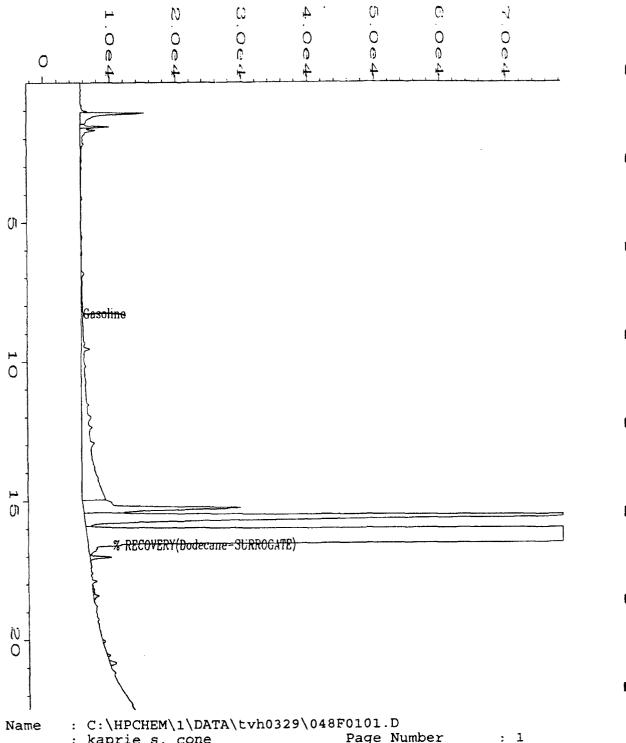
```
: C:\HPCHEM\1\DATA\tvh0329\047F0101.D
Data File Name
                                                 Page Number
                 : kaprie s. cone
Operator
                                                                  : 47
                                                 Vial Number
Instrument
                 : TVH
                                                 Injection Number : 1
                 : X04549; 1; 5
Sample Name
                                                 Sequence Line
                                                                  : 1
Run Time Bar Code:
                                                 Instrument Method: TVH0329
                 : 30 Mar 95
Acquired on
                              01:30 PM
                                                 Analysis Method : TVH0329.mfH
Report Created on: 30 Mar 95 01:53 PM
                                                 Sample Amount
                                                                  : 0
                   29 MAR 95 08:06 PM
Last Recalib on :
                                                 ISTD Amount
Multiplier
                 : 95-0915; PARSONS ES; CLIENT # 24MP-8D; 5 ML
Sample Info
                   WATER
```

Dm 4/17/95



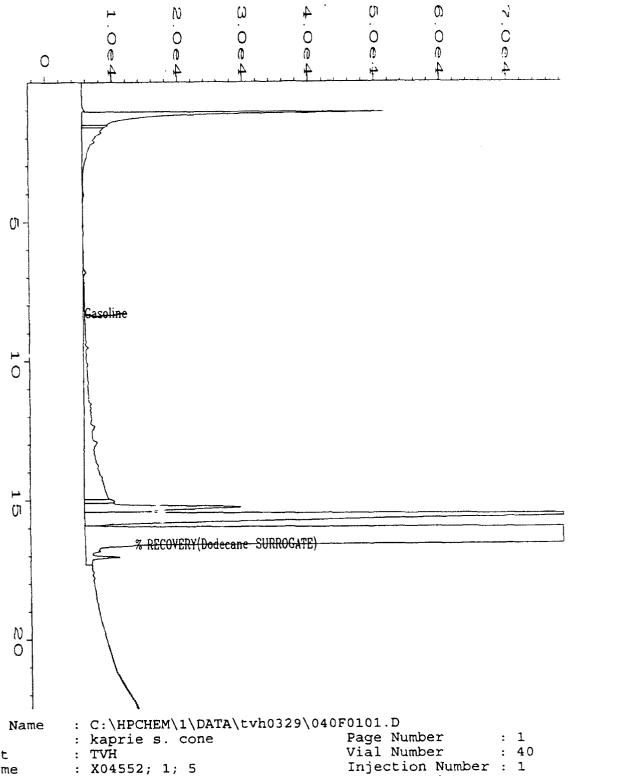
F - Time Bar Code: uired on Analysis Method : TVH0329.MTH Report Created on: 30 Mar 95 07:55 AM 0 Last Recalib on : 29 MAR 95 08:06 PM Sample Amount ISTD Amount Multiplier : 95-0915; PARSONS ES; CLIENT # 24MP-8S; 5 ML Sample Info pm 4/17/97 WATER

Operator

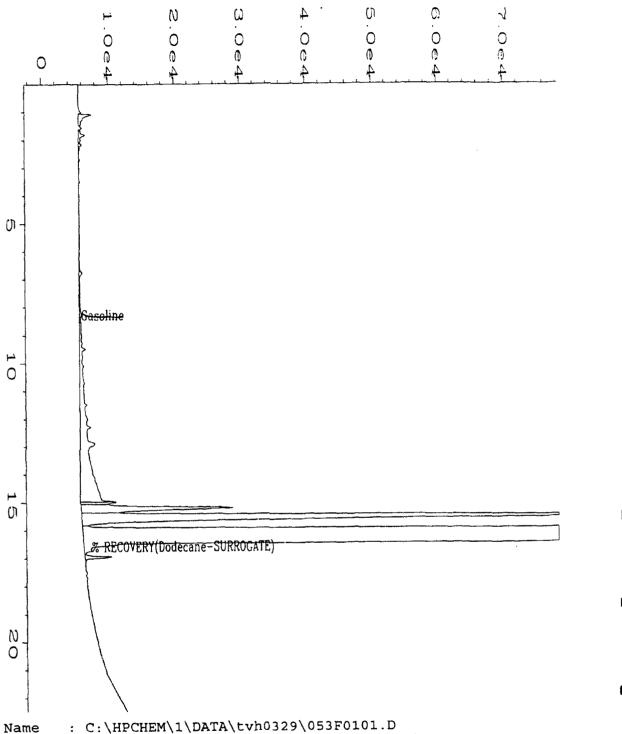


Data File Name Page Number : kaprie s. cone Operator Vial Number : 48 Instrument : TVH Injection Number: 1 : X04551; 1; 5 Sample Name Sequence Line : 1 Run Time Bar Code: Ξ : 30 Mar 95 02:04 PM Instrument Method: 17H0329 Acquired on Analysis Method : TVH0329.mTH Report Created on: 30 Mar 95 02:27 PM Sample Amount Last Recalib on : 29 MAR 95 08:06 PM : 0 ISTD Amount Multiplier : 95-0915; PARSONS ES; CLIENT # 24MP-9; 5 ML Sample Info WATER MD24

om ulalas



Data File Name Operator Instrument Sample Name Sequence Line run Time Bar Code: Instrument Method: TVH0329.MTH : 30 Mar 95 09:13 AM quired on Analysis Method : TVH0329.MTH Report Created on: 30 Mar 95 09:39 AM Last Recalib on : 29 MAR 95 08:06 PM Sample Amount ISTD Amount Multiplier : 1 : 95-0915; PARSONS ES; CLIENT # 24MP-10A; 5 ML Sample Info mo24 pm 4/17/95 WATER

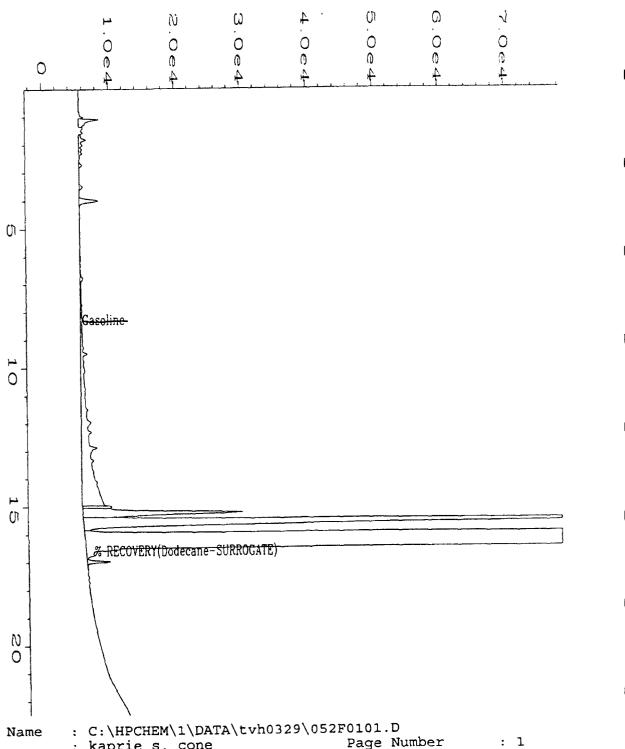


```
Data File Name
                                                 Page Number
                 : kaprie s. cone
Operator
                                                 Vial Number
                                                                  : 53
Instrument
                 : TVH
                                                 Injection Number: 1
                 : X04553 DF=1,5
Sample Name
                                                 Sequence Line
                                                                   : 1
Run Time Bar Code:
                                                 Instrument Method: TVH0329
                 : 30 Mar 95
                              04:54 PM
Acquired on
                                                 Analysis Method : TVH0329... TH
Report Created on: 30 Mar 95 05:17 PM
                                                 Sample Amount
                                                                   : 0
Last Recalib on : 29 MAR 95 08:06 PM
                                                 ISTD Amount
Multiplier
                 : PROJECT # 95-0915 CLIENT # MD24-10 WATER
Sample Info
```

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O
            -% RECOVERY(Dodecane-SURROGATE)
N
         : C:\HPCHEM\1\DATA\tvh0329\051F0101.D
                                                 Page Number
                                                                        : 1
         : kaprie s. cone
                                                 Vial Number
                                                                        : 51
         : TVH
                                                 Injection Number: 1
         : X04554 DF=1,5
```

```
Data File Name
Operator
Instrument
Sample Name
                                                                  : 1
                                                 Sequence Line
pun Time Bar Code:
                                                 Instrument Method: TVH0329.MTH
                 : 30 Mar 95
                              03:46 PM
  quired on
                                                                 : TVH0329.MTH
                                                 Analysis Method
                              04:09 PM
keport Created on: 30 Mar 95
                                                 Sample Amount
Last Recalib on : 29 MAR 95 08:06 PM
                                                 ISTD Amount
Multiplier
                 : PROJECT # 95-0915 CLIENT # MD24-7 WATER
Sample Info
```

pm 4/17/95



Data File Name Page Number : kaprie s. cone Operator Vial Number : 52 : TVH Instrument Injection Number: 1 : X04555 DUP Sample Name : 1 Sequence Line Run Time Bar Code: Instrument Method: TVH0329 : 30 Mar 95 04:20 PM Acquired on Analysis Method : TVH0329.mfH Report Created on: 30 Mar 95 04:43 PM Sample Amount Last Recalib on : 29 MAR 95 08:06 PM ISTD Amount Multiplier : PROJECT # 95-0915 CLIENT # MD24-7 WATER Sample Info

Drn 4/17/95

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: MATRIX SPIKE

Client Project No.

: 722450.21020/MAC

Lab Sample No.

: X04571

Lab Project No. EPA Method No. : 95-0915 : 5030/8015 Mod.

Date Sampled
Date Received

: 3/20/95 : 3/22/95 : 4/2/95

Matrix Method Blank : SOIL : MB040295

Date Prepared Date Analyzed

: 4/2/95

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/kg)	(mg/kg)	(mg/kg)	%REC	%REC
Gasoline	2.00	0.00	2.05	103%	60-140

	Spike	MSD			(JC
Compound	Added	Concentration	MS	RPD	Liı	mits
	(mg/kg)	(mg/kg)	%REC		RPD	%REC
Gasoline	2.00	1.83	92%	11	50	60-140

* ==	: V	alues	outside	of	ОC	limits.
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RPD:

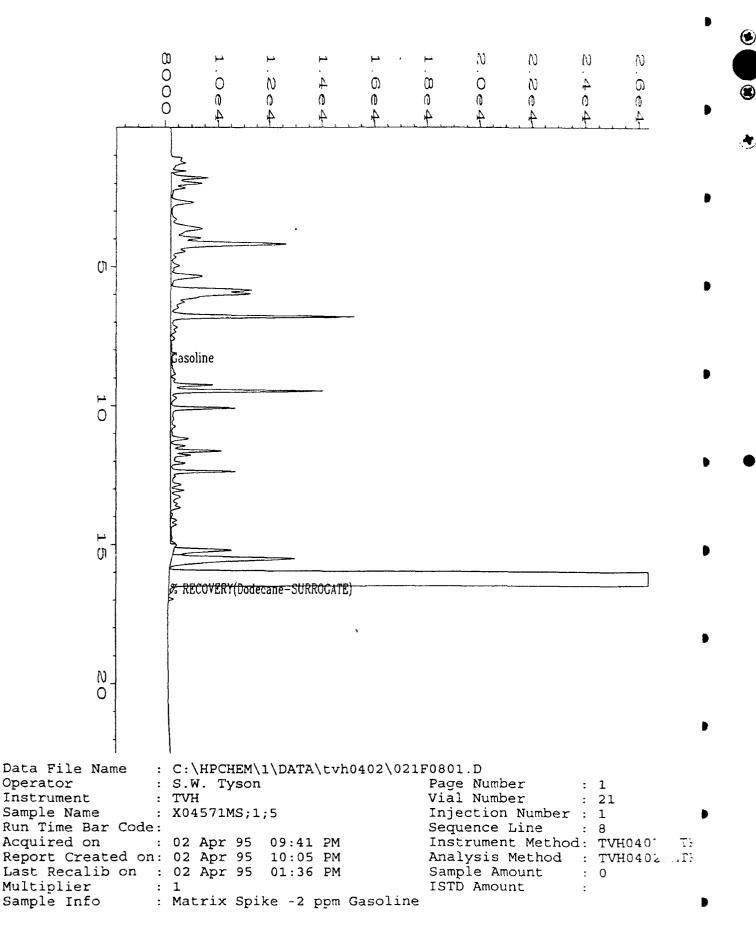
0 out of (1) outside limits.

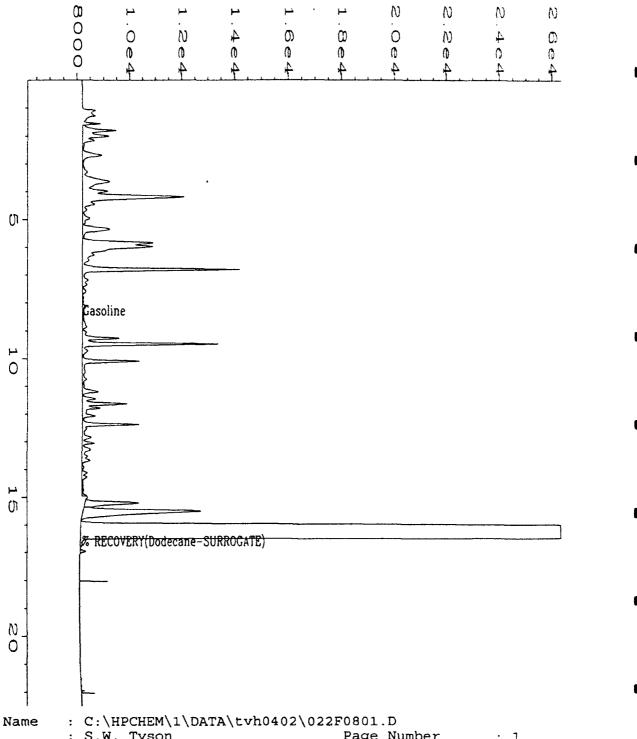
Spike Recovery:

0 out of (2) outside limits.

Comments:

NA = Not analyzed/not applicable.





Data File Name Operator : S.W. Tyson Page Number Vial Number Instrument : TVH : 22 Injection Number : 1 Sample Name : X04571MSD;1;5 Run Time Bar Code: Sequence Line : 8 : 02 Apr 95 10:15 PM Instrument Method: TVH0402.MTH quired on sport Created on: 02 Apr 95 10:38 PM Analysis Method : TVH0402.MTH Last Recalib on : 02 Apr 95 01:36 PM Sample Amount Multiplier ISTD Amount Sample Info : Soil Spike Duplicate - 2 ppm Gasoline

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS033095

Matrix

: SOIL

Date Prepared

: 3/30/95

Method Number

: 5030/MOD.8015

Date Analyzed Sequence Number : 3/30/95 : TVH6

	Theoretical	LCS	LCS	
Compound	Concentration	Concentration	%	QC Limit
Name	mg/L	mg/ L	Recovery	% Recovery
Gasoline	1.00	0.87	87%	70%-130%

QUALIFIERS

U = TVH analyzed for but not detected.

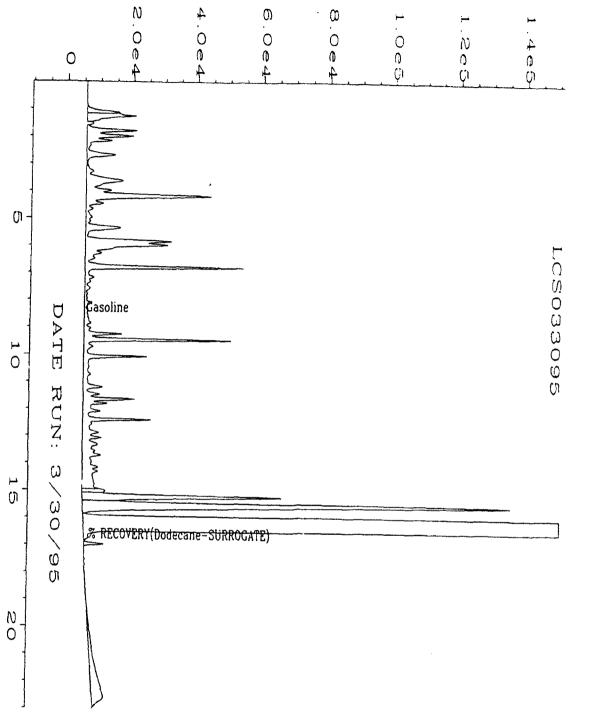
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



```
Data File Name
                 : C:\HPCHEM\1\DATA\TVH0330\006F0201.D
Operator
                 : Dawn N. Guildner
                                                 Page Number
Instrument
                   TVH
                                                 Vial Number
                                                                    6
Sample Name
                   LCS033095
                                                 Injection Number:
                                                                    1
Run Time Bar Code:
                                                 Sequence Line
                                                                  : 2
 quired on
                 : 30 Mar 95
                              08:43 PM
                                                 Instrument Method: TVH0323.MTH
Leport Created on: 31 Mar 95
                              09:47 AM
                                                 Analysis Method
                                                                  : TVH0330.MTH
Last Recalib on : 29 MAR 95 08:06 PM
                                                 Sample Amount
                                                                  : 0
Multiplier
                 : 1
                                                 ISTD Amount
```

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EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS033195

Matrix

Method Number

: SOIL

Date Prepared

Sequence Number

: 3/31/95

Date Analyzed :

: 3/31/95 : TVH3 : 5030/MOD.8015

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit% Recovery
Gasoline	1.00	0.75	75%	70%-130%

QUALIFIERS

U = TVH analyzed for but not detected.

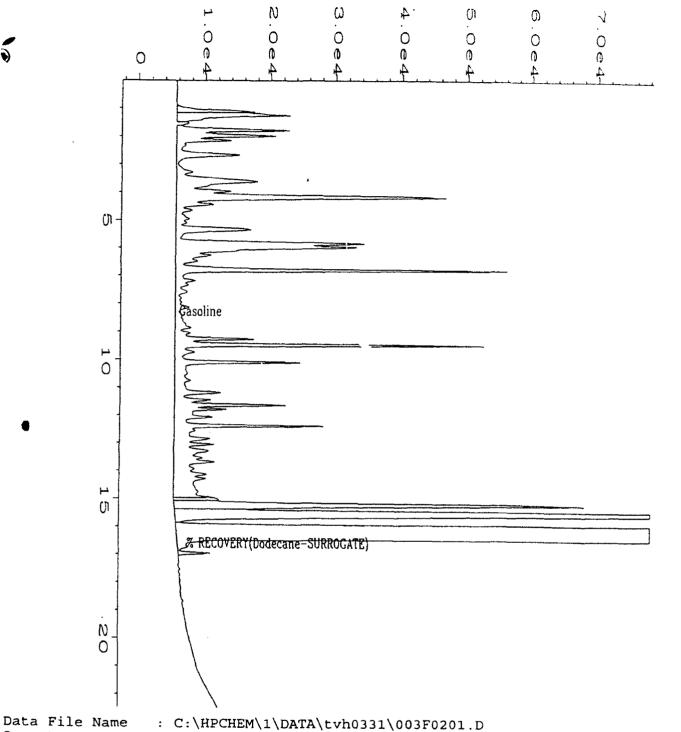
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



Operator : Dawn N. Guildner Page Number Instrument : TVH Vial Number : 3 Sample Name : LCS033195 Injection Number: 1 Run Time Bar Code: Sequence Line : 2 uired on : 31 Mar 95 10:33 AM Instrument Method: TVH0331.MTH ...port Created on: 31 Mar 95 10:56 AM Analysis Method : TVH0331.MTH Last Recalib on : 31 Mar 95 09:48 AM Sample Amount : 0 Multiplier ISTD Amount

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS040295

Matrix

: SOIL

Date Prepared

: 4/2/95

Method Number

: 5030/MOD.8015

Date Analyzed

: 4/2/95

Sequence Number

: TVH8

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	2.00	1.75	88%	70%-130%

QUALIFIERS

U = TVH analyzed for but not detected.

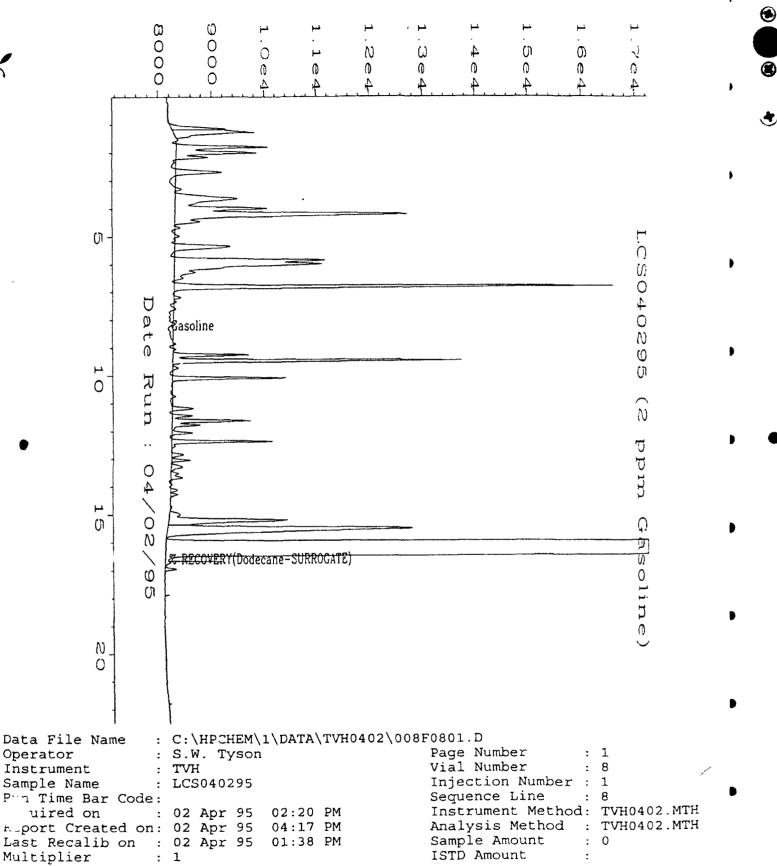
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303)425-6021

Anions

			722450.21020
Date Sampled	: 3/20,21/95	Client Project ID.	: /MacDill AFB
Date Received	: 3/22/95	Lab Project No.	: 95-0915
Date Prepared	: 3/22/95	Method	: EPA 300.0

Date Prepared: 3/22/95 Method: EPA 30
Date Analyzed: 3/22/95 Matrix: Water

Detection Limit : 0.250 mg/L

Evergre Sample		Chloride (mg/L)
X04546	24MP-5S	9.06-
X04547	24MP-3S	6.51
X04548	24MP-3D	384
X04549	24MP-8D	347
X04550	24MP-8S	98.2
X04551	MD24-9	30.6
X04552	MD24-10A	370
X04553	MD24-10	140
X04554	MD24-7	8.77
X04555	MD24-7(Dup)	8.19
Method :	Blank 3-22-95	<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04555	MD24-7(Dup) Matrix Spike	10.0	8.77	18.3	95.5
X04555	MD24-7(Dup) Matrix Spike Du	10.0 p	8.77	19.2	104
	MS/MSD RPD				8.33
X04554/X04	555 Dup RPD				6.84

Analyst

Approved

0915cm.25

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303)425-6021

Anions

			•			722450.21020
			3/20,21/95	Client Project ID.	:	/MacDill AFB
Date	Received	:	3/22/95	Lab Project No.	:	95-0915
	Prepared			Method	:	EPA 300.0
Date	Analyzed	:	3/22/95	Matrix	:	Water
				Detection Limit	:	0.076~mg/L

Evergreen Sample #	Client <u>Sample ID</u>	Nitrite-N (mg/L)
X04546	24MP-5S	<0.076
X04547	24MP-3S	<0.076
X04548	24MP-3D	<0.760*
X04549	24MP-8D	<0.760*
X04550	24MP-8S	<0.076
X04551	MD24-9	<0.076
X04552	MD24-10A	<0.760*
X04553	MD24-10	<0.760*
X04554	MD24-7	<0.076
X04555	MD24-7 (Dup)	<0.076
Method Blan	k 3-22-95	<0.076

Quality Assurance **

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
	MD24-7(Dup) Matrix Spike	10.0	<0.250	9.81	98.1
	MD24-7(Dup) Matrix Spike Dup	10.0	<0.250	9.85	98.5
	MS/MSD RPD				0.407
X04554/X045	55 Dup RPD				NC

* = Increased detection limit due to matrix interference.

** = Quality assurance results reported as Nitrite (NO₂).

NC = Not calculated because sample and/or duplication results below detection limit.

Approved

0915tm.25

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303)425-6021

Anions

Date Sampled : 3/20,21/99 Date Received : 3/22/95 Date Prepared : 3/22/95 Date Analyzed : 3/22/95	Client Project ID. Lab Project No. Method Matrix Detection Limit	722450.21020 : /MacDill AFB : 95-0915 : EPA 300.0 : Water : 0.056 mg/L
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Evergreen <u>Sample #</u>	Client <u>Sample ID</u>	Nitrate-N (mg/L)
X04546	24MP-5S	<0.056
X04547	24MP-3S	<0.056
X04548	24MP-3D	<0.056
X04549	24MP-8D	<0.056
X04550	24MP-8S	<0.056
X04551	MD24-9	<0.056
X04552	MD24-10A	1.09
X04553	MD24-10	<0.056
X04554	MD24-7	<0.056
X04555	MD24-7(Dup)	<0.056
Method Blan	k 3-22-95	<0.056

Quality Assurance **

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X04555	MD24-7(Dup) Matrix Spike	10.0	<0.250	9.46	94.6
X04555	MD24-7(Dup) Matrix Spike Dup	10.0	<0.250	9.22	92.2
	MS/MSD RPD				2.57
X04554/X04	555 Dup RPD				NC

** = Quality assurance results reported as Nitrate (NO_3). NC = Not calculated because sample and/or duplication results below detection limit.

Approved

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EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033

(303)425-6021

Anions

							/22450.21	.020
Date Sampled	:	3/20,21/95	Client	Project	ID.	:	/MacDill	AFB
Date Received	•	3/22/95		oject No			95-0915	

Detection Limit : 0.250 mg/L

Evergreen Sample #	Client <u>Sample ID</u>	Sulfate (mg/L)
X04546	24MP-5S	37.4
X04547	24MP-3S	7.63
X04548	24MP-3D	30.5
X04549	24MP-8D	52.7
X04550	24MP-8S	38.9
X04551	MD24-9	28.0
X04552	MD24-10A	10.6
X04553	MD24-10	34.6
X04554	MD24-7	14.0
X04555	MD24-7 (Dup)	13.6
Method Blan	k 3-22-95	<0.250

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mq/L)	Spike Result (mg/L)	% Recovery
X04555	MD24-7(Dup) Matrix Spike	10.0	14.0	24.0	100
X04555	MD24-7(Dup) Matrix Spike Dup	10.0	14.0	23.5	95.0
	MS/MSD RPD				5.13
X04554/X04	555 Dup RPD				2.53

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Approved

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EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303)425-6021

Miscellaneous Analyses

Date Sampled : 3/20,21/95
Date Received : 3/22/95
Date Prepared : 3/22/95
Date Analyzed : 3/22/95 Client Project ID. : Mac Dill AFB

Lab Project No. : 95-0915 Detection Limit : 5.00 mgCaCO₃/L

Method : EPA 310.1

Evergreen Sample #	Client <u>Sample ID</u>	<u>Matrix</u>	Total Alkalinity (mgCaCO ₃ /L)
X04546 X04547 X04548 X04549 X04550 X04552 X04552 Dup X04553	24MP-5S 24MP-3S 24MP-3D 24MP-8D 24MP-8S MD24-10A MD24-10A Dup MD24-10	Water Water Water Water Water Water Water	333 202 188 232 215 206 206 252
Method Blan	k 3/22/95		<5.00

Quality Assurance

	True Value (mgCaCO ₃ /L)	Result (mgCaCO ₃ /L)	% Recovery
APG Reference Minerals Level 2 Lot #13862	11.8	10.8	91.5
X04552/04552 Dup RPD			0.19

Approved

0915tm.4



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP ANALYSIS RESULTS

Date:

04/04/95

Lab Name: Contact: Huffman Labs

Sue Zeller

Client: Evergreen Analytical Contact: Patty McClellan

Sample Matrix:

Huffman Lab #: 147195

1D 2 #7 2 #7 2 #7 2 #7
2 #7 2 #7 2 #7
2 #7 2 #7
2 #7
-
2 #7
z tower
z tower
2 tower
2 tower
2 tower
c NA
c NA
c NA
a NA
e NA

Samples analyzed and results reported on as as received basis.

Soil samples are not homogeneous.

Values reported below Detection Limits are for reference only.

TC detection limit = 0.05%
CC detection limit = 0.02%
TOC detection limit = 0.05%

Page 1



LABORATORIES, INC.

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NON-CLP ANALYSIS RESULTS LABORATORY CONTROL STANDARD

Date:

04/04/95

Client: Evergreen Analytical

Lab Name:

Huffman Labs Sue Zeller Contact: Patty McClellan

Contact:

Huffman Lab #: 147195

LABORATORY CONTROL STANDARD

Lal	Source	Element/	True	Found	% R	Units		Method	instrument
ID :	#	Compound	Value	Value	_		Date	#	ID
LC	BN 4851	TC	3.35	3.41	102	%	03/31/95	Leco CR12	#7
LC:	BN 4056	CC	11.33	11.29	100	%	03/27/95	COU-02	tower

SPIKE RECOVERY

Lab	Source	Element/	True	Found	% R	Units		Method	instrument
ID#		Compound	Value	Value			Date	#	ID
SPIKE	BN 4712	TC	17280	16231	94	ug C	03/31/95	Leco CR12	#7
SPIKE DUP	BN 4712	TC	18000	17490	97	ug C	03/31/95	Leco CR12	#7
SPIKE	BN 4712	CC	1408	1410	100	ug C	03/27/95	COU-02	tower
SPIKE DUP	BN 4712	CC	1355	1344	99	ug C	03/27/95	COU-02	tower



LABORATORIES, INC.

Quality Analytical Services Since 1936 4630 Indiana Street • Golden, CO 80403

NON-CLP QA/QC ANALYSIS RESULTS INITIAL AND CONTINUING CALIBRATION VERIFICATION

Date:

04/04/95

Client: Evergreen Analytical

Lab Name:

Huffman Labs Sue Zeller Contact: Patty McClellan

Contact:

Huffman Lab #: 147195

INITIAL CALIBRATION

Lab	Source	Element/	True	Found	% R	Units		Method	Instrument
 ID#		Compound	Value	Value			Date	#	ID
ICS	BN 4712	TC	12.00	12.05	100	%	03/31/95	Leco CR12	#7
 ICS	BN 4712	cc	12.00	11.97	100	%	03/27/95	COU-02	tower

Slope = NA

Intercept =

NA

95% Correlation Coefficient =

NA

Single point calibrations for this test.

CONTINUING CALIBRATION VERIFICATION

Instrument	Method		Units	% R	Found	True	Element/	Source	Lab
ΙD	#	Date			Value	Value	Compound		ID#
#7	Leco CR12	03/31/95	%	99	11.83	12.00	TC	BN 4712	CCS
#7	Leco CR12	03/31/95	%	102	12.26	12.00	TC	BN 4712	CCS
# / #7	Leco CR12	03/31/95	%	102	12.23	12.00	TC	BN 4712	CCS
., ,	· · · · · · · · · · · · · · · · · · ·	03/27/95	%	100	11.97	12.00	CC	BN 4712	ccs
tower	COU-02					12.00	CC	BN 4712	ccs
tower	COU-02	03/27/95	%	99	11.92	12.00	CC	DI4 7/12	000

HUFFMAN

LABORATORIES, INC.

Quality Analytical Services Since 1936

4630 Indiana Street - Colden, CO 80403

ANALYSIS	CARBONATE CARBON	METHOD	SOP COU-22
ANALYZER #	6	COULOMETER #	Acres Person
BALANCE #	1/0		

CALCIUM CA		BOTTLE # 47/2	% C THEO	RY = 12.00%		01UM CARBO 2C03	NATE	#056	%C THEOR	Y = 11,33
SAMPLE NO.	TARE WT. GRAMS	TARE + SAMPLE WT.	SAMPLE WT. GRAMS	NOTES		COUNTS µGRAMS	LESS BLANK -7.	% CARBON AS CARBONATE CARBON		RECOVERY
BL			_			5.1			MB	
BL						7.2	_		MB	
BL				- Pruch		7.0			IB	
		0.491952	<u> </u>			997.9	1990.9	11.97	ICS	99.7
NazCO3	0549259		0.009794			1112,5	1105.5	11.29	145	99.6
144301	4.203316	i	<u> </u>	BACHLES CHE		433.0	426.0	0.0142	± C.CC%	521-mg/L
144301	4.210786	7.232688	<u> </u>			435,3	HZ8.3	0.0143	CFMEAN	524. NIG/C
144301	4.205293	7.202797	2.997504			1366.3	/359.3			
+Spike			2,990189							
144301	t.204548	7.229002	3.024454			/383./	1376.	/		
+ SPIKE;	4.206/92 2.34 5.00	7.232466	3.02GZ74f	2.	-	Same Sec	, 1			. 1
	1206700	7.219944	3.013244			953.5	946.5	0.0316		1151.A9/L
Spike &	1207313	7.204383	2.997076		K	749.0	942,0	0.0314		1151-MJ/L
144302	1,208907	7.239396	3.030489		į	534.9	527.9	0.0176		645.96/L
144303 4	t. 201825	7.2067.39	3.001914	V	1	857.7	850.7	0.028		10 41 mg/L
Call3	557/16	0.566900	0.009784		1	//77.8	//70.8	11.97	CCS	99.7
							90.	To a make the		
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ANALYSI/		DATE	3-27-9	5_ REVIEWE	0	٧	DAT		,	7 1
SPIKE 1	MARK SCDIW		3 26 9. ATE 2164			28 0.03	3 9/00	3/28/15	PAGE AE JSS	OF 2-
		7/21/94		. 0/1/	- () / ₆ CC ·	3		

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CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project #: 95-1063

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB (722450.21020)

Sample Receipt

On April 1, 1995, twenty water samples and one trip blank were received in good condition at EAL with the following discrepancies: the samples arrived without a chain of custody. A copy of the chain of custody was faxed to EAL on April 3. Samples were received but not listed on the c.o.c. for MD24-26 TEPH, MD24-MW10A BTEX, MD24-MW10 BTEX, MD24-MW2 MS/MSD TEPH. These samples were analyzed as listed on the bottles per instruction from John Hicks of PES.

Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES sample identifications.

BTEX, Water Matrix, Method E602

Samples MD75-MW3, MD75-MW14 and MD75-MW4 were analyzed within holding time with low surrogate recovery. The samples were re-run outside holding time with surrogate recoveries within EAL control limits. The original data are reported.

Samples MD75-MW8, MD75-MW14, 75MP-4S, MD75-MW4 and MD75-MW24 were also analyzed within holding times, but due to the presence of target compounds beyond linear range, required dilutions. These dilutions were performed outside of holding times. The original data are reported with extrapolated values for compounds out of the linear range of the instrument. The external standard reports and chromatograms for the diluted analyses are included.

Total Volatile Hydrocarbons (TVH), Water Matrix, Method 8015M
The relative percent difference (RPD) for the MS/MSD percent
recoveries was outside the EAL control criteria. Please refer to
the Laboratory Control Sample for acceptable spike recovery data.
There were no other quality control anomalies to report.

Total Extractable Hydrocarbons (TEH), Water Matrix, Method 8015M One sample was submitted labeled MS/MSD for TEH analysis and was not associated with a normal sample. Due to a laboratory error, the sample was prepped without spiking. The MS/MSD sample was analyzed as a normal sample. John Hicks of PES was notified on April 4, 1995.

Page Two
Case Narrative
Parsons Engineering Science

Samples 24MP-2S, MS24-MW6, MD24-MW2, MD24-MW26 and MS/MSD exhibited surrogate recoveries below the EAL control limits. The samples were injected a second time with similar recoveries, verifying that the results are not an instrument problem. The re-injected results are reported with an "R" qualifier. Samples should have been re-extracted but were not due to insufficient sample volume.

<u>General Chemistry</u>
There were no quality control anomalies to report.

Patricia A. McClellan, Project Manager

Evergreen Analytical Sample Log Sheet	Project # <u>95-1063</u>							
Date(s) Sampled: 3/31/95 COC	Date Due: 4/06/95-UST 4/17/95-OTHERS							
ste Received: 4/01/95 Client Project I.D. 722450.21020/MAC DII	Holding Time(s): 4/02-NO2, NO3 4/14-BTEX,TVH Rush STANDARD							
Client: PARSONS ENGINEERING SCIENCE	Shipping Charges N/A							
Address: 1700 BROADWAY, SUITE 900	E.A. Cooler # 501							
DENVER, CO. 80210	Airbill # H/D							
Contact: TODD WIEDEMEIER	Custody Seal Intact? N							
	Cooler <u>N/A</u> Bottles <u>N/A</u>							
Phone #831-8100 Fax #831-8208	COC Present Y Sample Tags Present? Y Sample Tags Listed? Y Sample(s) Sealed? Y							
Special Instructions ALL BTEX AND VOA SAN								
TMB AND TEMB UNLESS OTHERWISE NOTED. AN ANALYZED ON THIS CLIENT'S PROJECT. MS/N								
THIS PROJECT.	NIBE BE KEGOTKED TOWN DIEW OWNE OF							
Lab Client								
# ID# Analysis	Mtx Btl Loc							
X05167A/B MD75-MW16 BTEX	W 40V 2							
X05168A/B 75MP-2S BTEX	W 40V 2							
X05169A/B MD75-MW12 BTEX	W 40V 2							
X05170A TRIP BLANK BTEX	W 40V 2							
X05171A/B MD75-MW3 BTEX	W 40V 2							
X05172A/B MD75-MW8 BTEX	W 40V 2							
X05173A/B MD75-MW14 BTEX	W 40V 2							
X05174A/B 75MP-4S BTEX	W 40V 2							
X05175A/B MD75-MW4 BTEX	W 40V 2							
X05176A/B MD75-MW24 BTEX	W 40V 2							
X05177A/B MD75-MW6 BTEX	W 40V 2							
X05179A/B MD24-MW6 BTEX	W 40V 2							
X05180A/B MD24-MW6A BTEX	W 40V 2							
X05181A FIELD BLANK BTEX	W 40V 2							
*Samples to be returned								
.'o	Wet Chem 2 SxPrep 1 SxRec 2							
Acctg \underline{X} Adm1 \underline{X} Adm2 \underline{X}	QA/QC \underline{X} Sales \underline{X} File \underline{X}							
Page 1 of 3 Page(s)	Custodian/Date: SC 4/4/95							
	Custodian/Date: 16 4/4/95							

ROS186A/B MD24-MW10A BTEX W 40V 2 ROS187A/B MD24-MW10 BTEX W 40V 2 ROS167C/D MD75-MW16 TVPH W 40V 2 ROS168C/D 75MP-2S TVPH W 40V 2 ROS169C/D MD75-MW12 TVPH W 40V 2 ROS169C/D MD75-MW3 TVPH W 40V 2 ROS171C/D MD75-MW3 TVPH W 40V 2 ROS171C/D MD75-MW8 TVPH W 40V 2 ROS173C/D MD75-MW8 TVPH W 40V 2 ROS173C/D MD75-MW8 TVPH W 40V 2 ROS173C/D MD75-MW4 TVPH W 40V 2 ROS173C/D MD75-MW4 TVPH W 40V 2 ROS173C/D MD75-MW4 TVPH W 40V 2 ROS176C/D MD75-MW24 TVPH W 40V 2 ROS176C/D MD75-MW24 TVPH W 40V 2 ROS176C/D MD75-MW6 TVPH W 40V 2 ROS176C/D MD75-MW6 TVPH W 40V 2 ROS176C/D MD75-MW6 TVPH W 40V 2 ROS176C/D MD75-MW8 TEPH W 1LA C2 ROS175E MD75-MW8 TEPH W 1LA C2 ROS175E MD75-MW8 TEPH W 1LA C2 ROS175E MD75-MW8 TEPH W 1LA C2 ROS175E MD24-MW6 TEPH W 1LA C2 ROS178E 24MP-2S TEPH W 1LA C2 ROS183E MD24-MW2 TEPH W 1LA C2 ROS183E MD24-MW2 TEPH W 1LA C2 ROS183E MD24-MW2 TEPH W 1LA C2 ROS184E MD24-26 TEPH W 1LA C2 ROS185E MD24-MW2 MS/MSD TEPH W 1LA C2 ROS185E MD24-MW2 MS/MSD TEPH W 1LA C2 ROS168E 75MP-2S ANIONS W 125P C2 ROS168E 75MP-2S ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW4 ANIONS W 125P C2 ROS177E MD75-MW6 ANIONS W 125P C2 ROS177E MD75-MW6 ANIONS W 125P C2 ROS176E MD75-MW6 ANIONS W 125P C2 ROS176E MD75-MW6 ANI	Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc	
ROS187A/B MD24-MW10 BTEX W 40V 2 ROS167C/D MD75-MW16 TVPH W 40V 2 ROS168C/D 75MP-2S TVPH W 40V 2 ROS168C/D MD75-MW12 TVPH W 40V 2 ROS171C/D MD75-MW3 TVPH W 40V 2 ROS171C/D MD75-MW3 TVPH W 40V 2 ROS173C/D MD75-MW8 TVPH W 40V 2 ROS173C/D MD75-MW14 TVPH W 40V 2 ROS173C/D MD75-MW14 TVPH W 40V 2 ROS173C/D MD75-MW4 TVPH W 40V 2 ROS175C/D MD75-MW4 TVPH W 40V 2 ROS175C/D MD75-MW4 TVPH W 40V 2 ROS176C/D MD75-MW24 TVPH W 40V 2 ROS176C/D MD75-MW6 TVPH W 40V 2 ROS176C/D MD75-MW6 TVPH W 40V 2 ROS176C/D MD75-MW8 TEPH W 1LA C2 ROS175E MD75-MW8 TEPH W 1LA C2 ROS175E MD75-MW8 TEPH W 1LA C2 ROS175E MD75-MW4 TEPH W 1LA C2 ROS178E 24MP-2S TEPH W 1LA C2 ROS178E 24MP-2S TEPH W 1LA C2 ROS183E MD24-MW6 TEPH W 1LA C2 ROS183E MD24-MW6 TEPH W 1LA C2 ROS183E MD24-MW2 TEPH W 1LA C2 ROS183E MD24-MW2 TEPH W 1LA C2 ROS184E MD24-MW2 ROS16G TEPH W 1LA C2 ROS184E MD24-MW2 ROS16G TEPH W 1LA C2 ROS166E TOSM-2S ROS16F MD75-MW16 ROS16G ROS16F MD75-MW16 ROS16G ROS16F MD75-MW12 ROS16G ROS16F MD75-MW12 ROS16G ROS	X05182A	RINSEATE BLANK	BTEX	W	4 O V	2	
COS167C/D MD75-MW16 TVPH W 40V 2 COS168C/D 75MP-2S TVPH W 40V 2 COS169C/D MD75-MW12 TVPH W 40V 2 COS171C/D MD75-MW3 TVPH W 40V 2 COS171C/D MD75-MW8 TVPH W 40V 2 COS173C/D MD75-MW8 TVPH W 40V 2 COS173C/D MD75-MW14 TVPH W 40V 2 COS173C/D MD75-MW4 TVPH W 40V 2 COS173C/D MD75-MW4 TVPH W 40V 2 COS176C/D MD75-MW4 TVPH W 40V 2 COS176C/D MD75-MW4 TVPH W 40V 2 COS176C/D MD75-MW6 TVPH W 40V 2 COS176C/D MD75-MW6 TVPH W 40V 2 COS177C/D MD75-MW6 TVPH W 40V 2 COS177C/D MD75-MW6 TVPH W 40V 2 COS177C/D MD75-MW6 TVPH W 40V 2 COS177C/D MD75-MW6 TEPH W 1LA C2 COS172E MD75-MW3 TEPH W 1LA C2 COS172E MD75-MW4 TEPH W 1LA C2 COS172E MD75-MW6 TEPH W 1LA C2 COS172E MD74-MW6 TEPH W 1LA C2 COS172E MD24-MW6 TEPH W 1LA C2 COS184E MD24-MW2 TEPH W 1LA C2 COS184E MD24-MW2 TEPH W 1LA C2 COS185E MD24-MW2 MS/MSD TEPH W 1LA C2 COS185E MD24-MW2 MS/MSD TEPH W 1LA C2 COS185E MD24-MW2 MS/MSD TEPH W 1LA C2 COS185E MD75-MW16 ANIONS W 125P C2 COS171E MD75-MW8 ANIONS W 125P C2 COS171E MD75-MW8 ANIONS W 125P C2 COS177E MD75-MW8 ANIONS W 125P C2 COS177E MD75-MW4 ANIONS W 125P C2 COS177E MD75-MW4 ANIONS W 125P C2 COS177E MD75-MW4 ANIONS W 125P C2 COS177E MD75-MW4 ANIONS W 125P C2 COS177E MD75-MW4 ANIONS W 125P C2 COS177E MD75-MW4 ANIONS W 125P C2 COS177E MD75-MW6 ANIONS W 125P C2 COS177E MD75-MW6 ANIONS W 125P C2 COS177E MD75-MW6 ANIONS W 125P C2 COS177E MD75-MW6 ANIONS W 125P C2 COS177E MD75-MW6 ANIONS W 125P C2 COS177E MD75-MW6 ANIONS W 125P C2 COS177E MD75-MW6 ANIONS W 125P C2 COS177E MD75-MW6 ANIONS W 125P C2 COS177E	X05186A/B	MD24-MW10A	BTEX	W	40V	22	
KQ5168C/D 75MP-2S TVPH W 40V 2 KQ5169C/D MD75-MW12 TVPH W 40V 2 KQ5171C/D MD75-MW3 TVPH W 40V 2 KQ5173C/D MD75-MW8 TVPH W 40V 2 KQ5173C/D MD75-MW14 TVPH W 40V 2 KQ5173C/D MD75-MW4 TVPH W 40V 2 KQ5175C/D MD75-MW4 TVPH W 40V 2 KQ5175C/D MD75-MW24 TVPH W 40V 2 KQ5175C/D MD75-MW24 TVPH W 40V 2 KQ5175C/D MD75-MW66 TVPH W 40V 2 KQ5172E MD75-MW8 TEPH W 1LA C2 KQ5172E MD75-MW8 TEPH W 1LA C2 KQ5173E MD75-MW8 TEPH W 1LA C2 KQ5173E MD24-MW2	X05187A/B	MD24-MW10	BTEX	W	40V	2	
KO5169C/D MD75-MW12 TVPH W 40V 2 KO5171C/D MD75-MW3 TVPH W 40V 2 KO5172C/D MD75-MW3 TVPH W 40V 2 KO5173C/D MD75-MW14 TVPH W 40V 2 KO5174C/D 75MP-4S TVPH W 40V 2 KO5175C/D MD75-MW4 TVPH W 40V 2 KO5176C/D MD75-MW24 TVPH W 40V 2 KO5177C/D MD75-MW6 TVPH W 40V 2 KO5177C/D MD75-MW6 TVPH W 1LA C2 KO5172E MD75-MW8 TEPH W 1LA C2 KO5172E MD75-MW8 TEPH W 1LA C2 KO5173E 24MP-2S TEPH W 1LA C2 KO5173E MD24-MW2 TEPH W 1LA C2 KO5183E MD24-MW2 <td>X05167C/D</td> <td>MD75-MW16</td> <td>TVPH</td> <td>W</td> <td>40V</td> <td>2</td> <td></td>	X05167C/D	MD75-MW16	TVPH	W	40V	2	
R05171C/D MD75-MW3 TVPH W 40V 2 2 2 2 2 2 2 2 2	X05168C/D	75MP-2S	TVPH	W	40V	2	
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Page 2 of 3

PROJECT #1063

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PROJECT #1063

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4036 Younglied St. Wheat Ridge, Colorado 800 (303) 425-6021 FAX (303) 425-6654 (900) 745-7400**	FAX RESULTS
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Evergreen Analytical Sample Receipt/Check-in Record	 []
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Cooler# 50	_
Ice packs Y N Y N Y N Y N	
Temperature ℃	
1. Custody seal(s) present: Seals on cooler intact Seals on bottle intact	
2. Chain of Custody present:	
3. Containers broken or leaking: (Comment on COC if Y) 4. Containers labeled:	
4. Containers labeled:	
5. COC agrees w/ bottles received: (Comment on COC if N)	
6. COC agrees w/ labels: (Comment on COC if N)	
7. Headspace in VOA vials-waters only (comment on COC if Y)	
8. VOA samples preserved:	
9. pH measured on metals, cyanide or phenolics*: List discrepancies *Non-EAL provided containers only, water samples only.	
10. Metal samples present: Total, Dissolved D or PD to be filtered: T,TR,D,PD to be Preserved:	
11. Short holding times: Specify parameters	
12. Multi-phase sample(s) present:	
13. COC signed w/ date/time:	
Comments:	
(Additional comments on back) Custodian Signature/Date: ### CURINOV 4/3/95	

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CHAIN OF CUSTODY RECORD ' 'NALYTICAL SERVICES REQUEST

Suite 800 Sugarce 802 70 FAX # COMPANY PENSIONS ENGINEEINS Broadway 303-831-8100 STATE CO 1700 CITY DUNER ADDRESS_ PHONE*

4v36 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400 Evergreen Analytical Inc.

FAX RESULTS Y / N

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ANALYSIS REQUESTED

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Sampler Name:

Evergreen Analytical Inc.	4036 Younglield St. Wheat Ridge, Colorado 80033 (303) 425-6021 FAX (303) 425-6854 (800) 845-7400	FAX RESULTS Y / N
Everg	///	

CLIENT CONTACT (print) Todd Wiz de in EIR	PROJECT I.D. 727450.21020	EAL. QUOTE #
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Page 2 of 2

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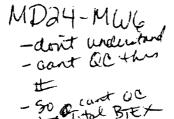
Date/Time | Received by: (Signature) Received 1030

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Method 602 Data Report

Client Sample Number : MD24-MW6~
Lab Sample Number : X05179

Date Sampled : 3/31/95

Date Received : 4/1/95

Date Prepared : 4/14/95

Date Analyzed : 4/14/95

Client Project No. : 722450.21020/Mac Dill
Lab Project No. : 95-1063

Dilution Factor : 1.00

Method : 602

Matrix : Water

Lab File No. : BX1041346

Method Blank No. : MB041495

		Sample	
Compound Name	Cas Number	Concentration	RL
		∵ag/L∖	ug/L
Benzene	71-43-2	>80 ••	0.4
Toluene	108-88-3	2.2	0.4
Chlorobenzene	108-90-7	1.3	0.4
Ethyl Benzene	100-41-4	25	0.4
Total Xylenes	108-38-3, 106-42-3	6.7	0.4
(m, p & o)	and 95-47-6		
1,3,5-Trimethylbenzene	108-67-8	0.5	0.4
1,2,4-Trimethylbenzene	95-63-6	1 0	0.4
1,2,3-Trimethylbenzene	526-73-8	2.3	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	8.5	0.4
Surrogate Recovery (a,a,a-Trifluo	protoluene):	96%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

** = Greater than 10% of the calibration range.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

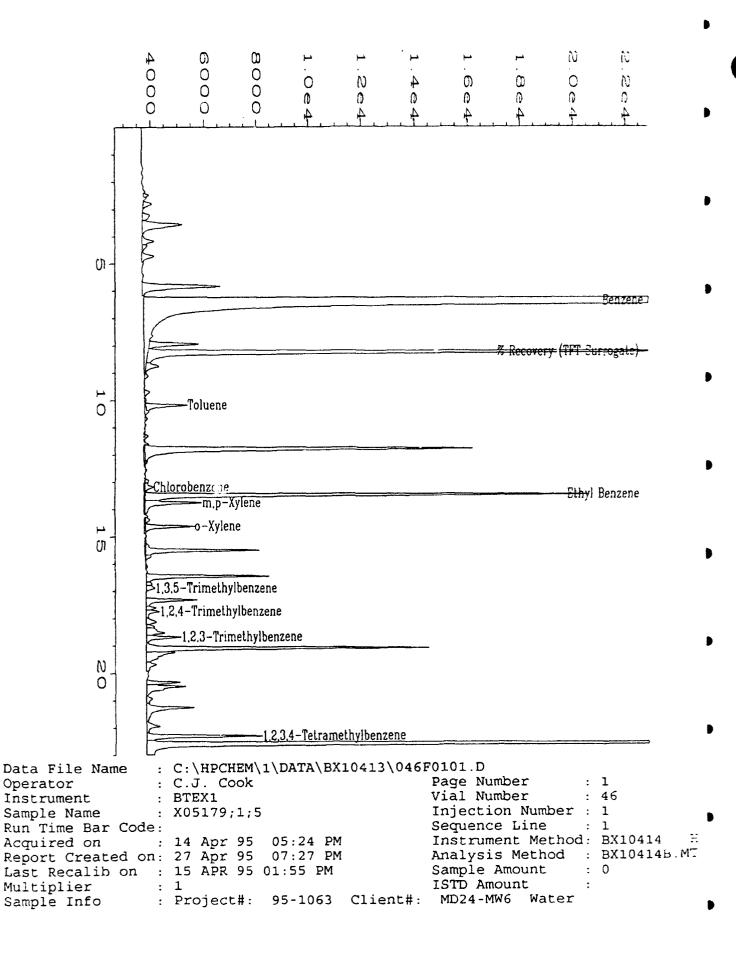
B = Compound also found in the blank.

RL = Reporting Limit.

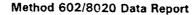
NA = Not Available/Not Applicable.

Analyst

Approved



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Client Sample Number : MD24-MW6 Client Project No. : 722450.21020/MAC DIL Lab Sample Number : X05179 Lab Project No. : 95-1063 Date Sampled : 3/31/95 Dilution Factor : 100 **Date Received** : 4/1/95 Matrix : Water Date Prepared : 4/14/95 Lab File No. : BX20415015R Date Analyzed : 4/14/95 Method Blank No. : MB041495

		Sample	
Compound Name	Cas Number	Concentration	Reporting Limit
		(ug/L)	(ug/L)
Benzene	71-43-2	480	40

Surrogate Recovery:

77%

70%-130% (QC limits)

QUALIFIERS/NOTES:

E = Extrapolated value. Value exceeds calibration range.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Total xylenes consist of three isomers, two of which co-elute. The xylene RL is for a single peak.

Analyst

Approved

602TMB.XLS; 11/21/95

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20415\015R0101.D

Operator : T. Lockwood Page Number : 1

Instrument : BTEX2 Vial Number : 15

Sample Name : X05179;100;0.05 Injection Number : 1

Run Time Bar Code: Sequence Line : 1

Acquired on : 15 Apr 95 09:21 PM Instrument Method: BX20415 MTH Report Created on: 16 Apr 95 04:43 PM Analysis Method : BX20415A.MTF

Last Recalib on : 16 Apr 95 03:38 PM Sample Amount : 0 Multiplier : $1 \times i^{0}C$ ISTD Amount :

Sig. 2 in C:\HPCHEM\2\DATA\BX20415\015R0101.D

Ret Time		Aı	rea	Type	Width	Ref#	ug/L	Name
4.655	•		13992	ВВ	0.096	1	4.787	Benzene ×100 = 480
6.138			76837	BB	0.097	1-R	77.193	TFT Surrogate (% REC.)
7.729	*	not	found	*		1		Toluene 🖟 50
10.248	*	not	found	k .		1		Chlorobenzene
10.495			656	BV	0.096	1	0.286	Ethyl Benzene NF - 50
10.734			1691	VB	0.099	1	0.601	m,p-Xylene DF: (0
11.474	*	not	found	k		1		o-Xylene OF=50
13.542			640	BB	0.126	1	0.197	1,3,5-Trimethylbenzene
14.442	*	not	found	t .		1		1,2,4-Trimethylbenzene
15.390	*	not	found	k .		1		1,2,3-Trimethylbenzene DF= 5
18.176	*	not	found	+		1		1,2,3,4-Tetramethylbenzene

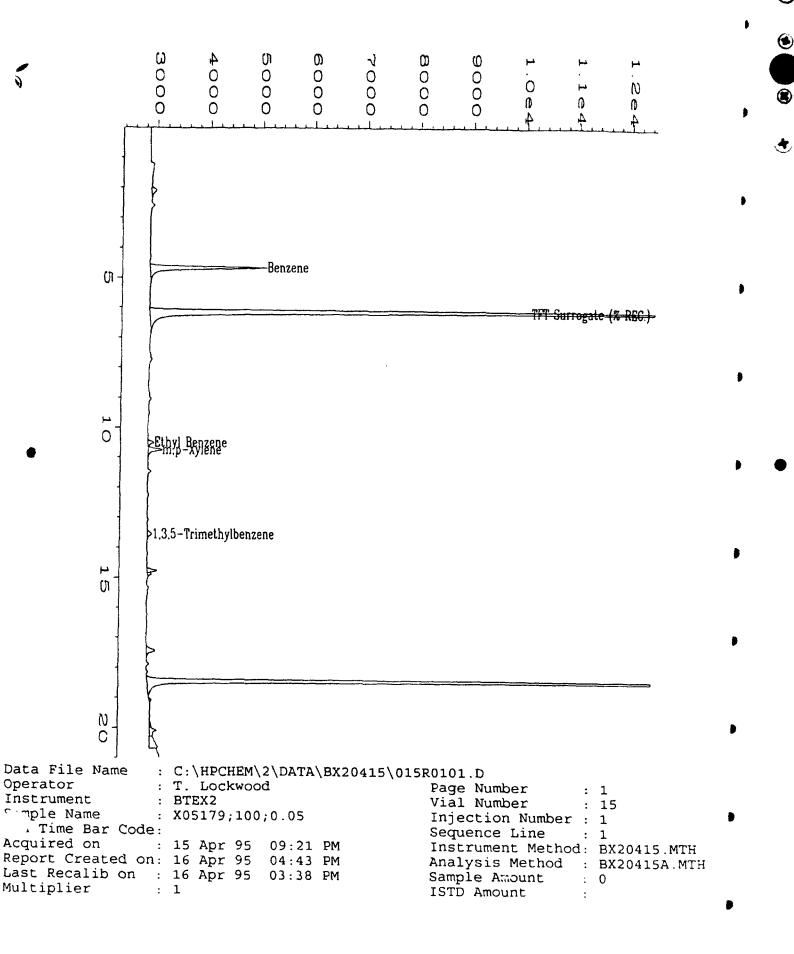
Time Reference Peak Expected RT Actual RT Difference 2 6.120 6.138 0.018

Not all calibrated peaks were found

.g lime

uf

not wed





Method 602 Data Report

: MD24-MW6 Client Project No. : 722450.21020/Mac E Client Sample Number Lab Sample Number : X05179 Lab Project No. : 95-1063 **Dilution Factor** : 1.00 **Date Sampled** : 3/31/95 : 4/1/95 Method : 602 **Date Received** : 4/14/95 Matrix : Water **Date Prepared** : BX1041346 : 4/14/95 Lab File No. **Date Analyzed** : MB041495 Method Blank No.

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	>80 **	0.4	
Toluene	108-88-3	2.2	0.4	
Chlorobenzene	108-90-7	1.3	0.4	
Ethyl Benzene	100-41-4	25	0.4	
Total Xylenes (m, p & o)	108-38-3, 106-42-3 and 95-47-6	6.7	0.4	
1,3,5-Trimethylbenzene	108-67-8	0.5	0.4	
1,2,4-Trimethylbenzene	95-63-6	1.0	0.4	
1,2,3-Trimethylbenzene	526-73-8	2.3	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	8.5	0.4	
Surrogate Recovery (α,α,α-Trifluo	rotoluene):	96%	70%-130% (QC limits)	

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

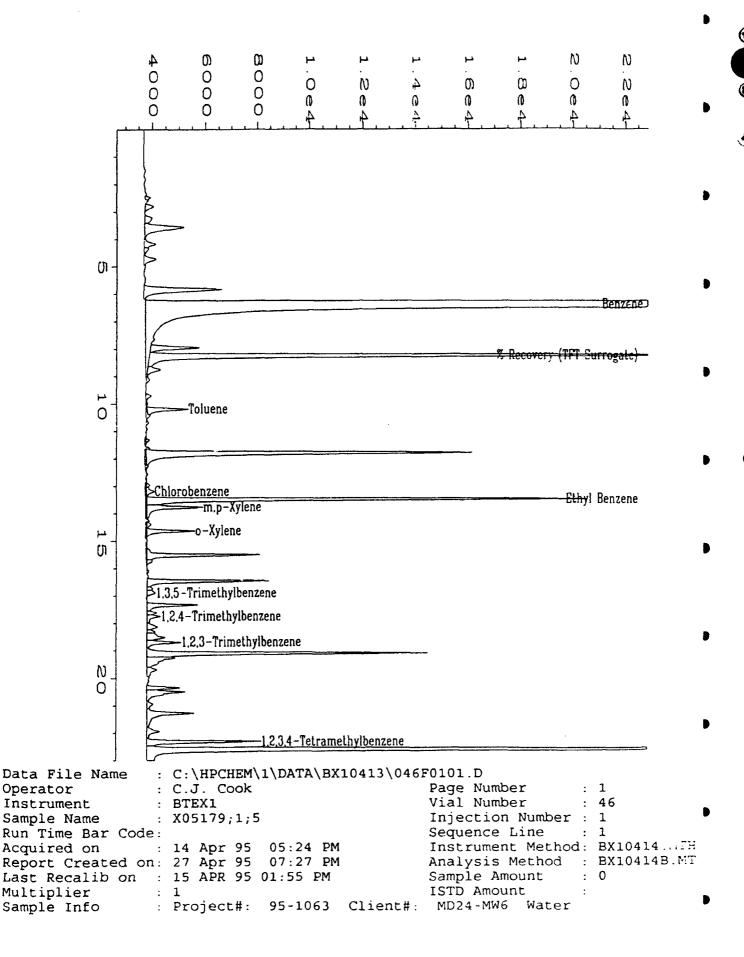
Analyst

Approved

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^{** =} Greater than 10% of the calibration range.

External Standard Report File Name : C:\HPCHEM\1\DATA\BX10413\046F0101.D Operator : C.J. Cook Page Number : 1 Instrument : BTEX1 Vial Number Sample Name : X05179;1;5 Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 14 Apr 95 05:24 PM Instrument Method: BX10414 MTH Report Created on: 27 Apr 95 07:27 PM Analysis Method : BX10414B.MTH Last Recalib on : 15 APR 95 01:55 PM Sample Amount Multiplier : 1 ISTD Amount Sample Info : Project#: 95-1063 Client#: MD24-MW6 Water Sig. 1 in C:\HPCHEM\1\DATA\BX10413\046F0101.D Ret Time Area Type Width Ref# ug/L Name (3137.814 Benzene) 6.388 1.45276E+007 HBAS 0.099 1 8.245 149044 VV T 0.101 1-R 96.366 % Recovery (TFT Surrogate) 10.179 9490 PB T 0.096 1 2.190 Toluene 3482 VV T 0.143 1 13.179 1.324 Chlorobenzene 17004 VV T 0.113 1 6.7 3 602 - 11775 W. T 13.476 1/004 VV T 0.113 1 6.1 3.692 m,p-Xylene 11775 VV T 0.095 1 2.968 o-Xylene 2557 VV 0.121 1 13.756 14.621 6.887 2557 VV 0.121 1 0.514 1,3,5-Trimethylbenzene 17.745 3592 VV 0.105 1 0.987 1,2,4-Trimethylbenzene 18.687 7823 VV 0.091 1 2.339 1,2,3-Trimethylbenzene 22.301 24962 HH 0.088 1 8.549 1,2,3,4-Tetramethylbenzene Time Reference Peak Expected RT Actual RT Difference 2 8.228 8.245 0.017



Method 602 Data Report

Client Sample Number	ᡳᢅ ᠅ : MD24-MW10 ೢ	Client Project No.	: 722450.21020/Mac Dill
Lab Sample Number	: X05187	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	; Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041354
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	υ	0.4
Ethyl Benzene	100-41-4	υ	0.4
Total Xylenes	108-38-3, 106-42-3	U	0.4
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	υ	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (a.a.a-Trifluo	protoluene):	83%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

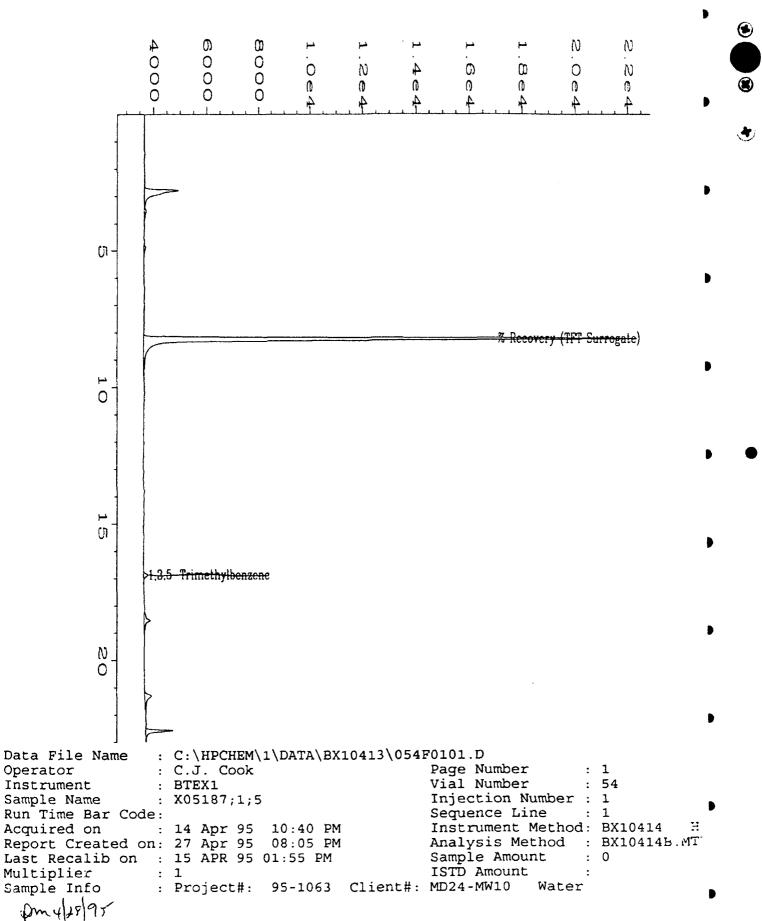
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



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Method 602 Data Report

Client Sample Number	: MD24-MW10A ,	Client Project No.	: 722450.21020/Mac Dill
Lab Sample Number	: X05186	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041351
		Method Blank No.	: MB041495

		Sample				
Compound Name	Cas Number	Concentration	RL			
		ug/L	ug/L			
Benzene	71-43-2	U	0.4			
Toluene	108-88-3	U	0.4			
Chlorobenzene	108-90-7	U	0.4			
Ethyl Benzene	100-41-4	U	0.4			
Total Xylenes	108-38-3, 106-42-3	υ	0.4			
(m, p & o)	and 95-47-6					
1,3,5-Trimethylbenzene	108-67-8	U	0.4			
1,2,4-Trimethylbenzene	95-63-6	υ	0.4			
1,2,3-Trimethylbenzene	5 ⁻ 6-73-8	U	0.4			
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4			
Surrogate Recovery (a,a,a-Trifluo	rotoluene):	84%	70%-130% (QC limits)			

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

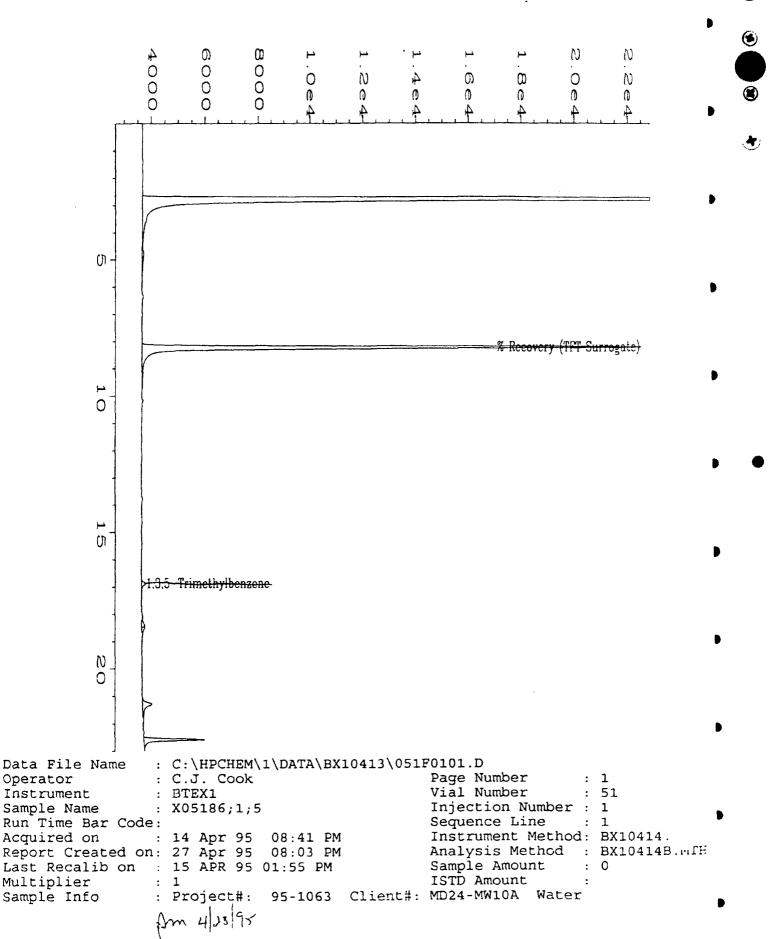
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved



Method 602 Data Report

Client Sample Number : MD24-MW10A Client Project No. : 722450.21020/Mac Dill : X05186DUP Lab Sample Number Lab Project No. : 95-1063 : 3/31/95 **Dilution Factor Date Sampled** : 1.00 Method **Date Received** : 4/1/95 : 602 **Date Prepared** : 4/14/95 Matrix : Water : 4/14/95 Lab File No. : BX1041353 **Date Analyzed** Method Blank No. : MB041495

	Sample				
Compound Name	Cas Number	Concentration	RL		
		ug/L	ug/L		
Benzene	71-43-2	U	0.4		
Toluene	103-88-3	U	0.4		
Chlorobenzene	108-90-7	υ	0.4		
Ethyl Benzene	100-41-4	U	0.4		
Total Xylenes	108-38-3, 106-42-3	U	0.4		
(m, p & o)	and 95-47-6				
1,3,5-Trimethylbenzene	108-67-8	0.8	0.4		
1,2,4-Trimethylbenzene	95-63-6	υ	0.4		
1,2,3-Trimethylbenzene	526-73-8	U	0.4		
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4		
Surrogate Recovery (α,α,α-Trifluorotoluene):		79%	70%-130% (QC limits		

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

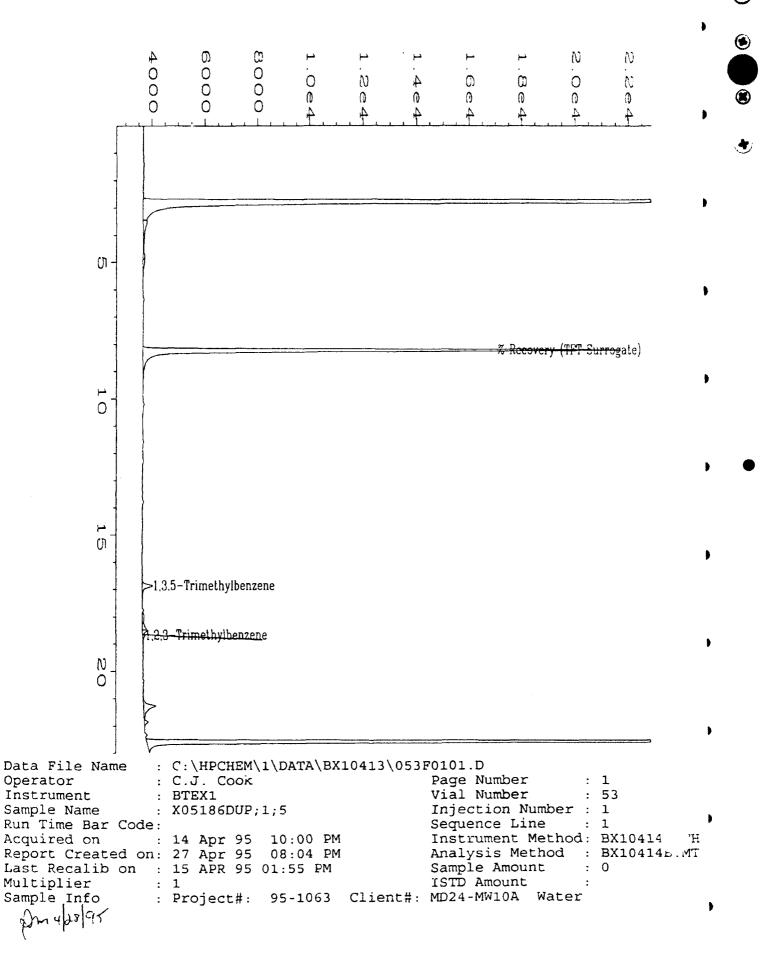
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved



Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No. : MD75-MW16 Client Project No. : 722450.21020

 Lab Sample No.
 : X05167
 Lab Project No.
 : 95-1063

 Date Sampled
 : 3/31/95
 EPA Method No.
 : 602

 Date Received
 : 4/1/95
 Matrix
 : Water

 Date Prepared
 : 4/13/95
 Lab File Number(s)
 : BX1041414,15

 Date Analyzed
 : 4/13/95
 Method Blank
 : MB041395

	Spike	Sample	MS		QC
Compound	Added	Concentration	Concentration	MS	Limits
	(ug/L)	(ug/L)	{ug/L}	%REC	%REC
Benzene	20.0	44.8	58.9	70.5	50-150
Toluene	20.0	0.9	16.5	78.0	50-148
Ethyl Benzene	20.0	108.0 E	118.1 E	50.5	50-150
m,p-Xylene	40.0	2.7	36.2	93.7	50-150
o-Xylene	20.0	0.0	15.6	78.0	50-150
Chlorobenzene	20.0	0.7	16.6	79.5	55-139
1,3,5-TMB	20.0	0.0	16.3	81.4	50-150
1,2,4-TMB	20.0	1.4	20.3	94.5	50-150
1,2,3-TMB	20.0	0.9	18.0	85.7	50-150
1,2,3,4-TeMB	20.0	49.6	68.0 E	92.0	50-150

	Spike	MSD				C
Compound	Added	Concentration	MSD	RPD	Liı	mits
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20.0	57.2	61.8	3.3	25	50-150
Toluene	20.0	16.1	76.2	0.6	25	50-148
Ethyl Benzene	20.0	114.7 E	33.4	10.2	25	50-150
m,p-Xylene	40.0	35.3	81.5	0.7	25	50-150
o-Xylene	20.0	15.3	76.5	0.5	25	50-150
Chlorobenzene	20.0	16.3	78.0	0.5	25	55-135
1,3,5-TMB	20.0	16.1	80.5	0.3	25	50-150
1,2,4-TMB	20.0	20.0	93.0	0.4	25	50-150
1,2,3-TMB	20.0	17.7	84.0	0.5	25	50-150
1,2,3,4-TeMB	20.0	66.9 E	86.5	1.5	25	50-150

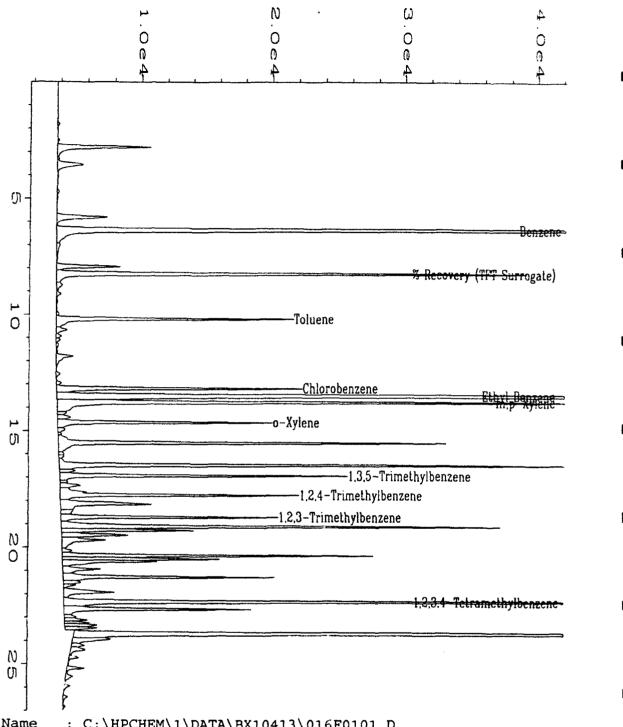
RPD: 0 out of (10) outside limits.
Calle December 1
Spike Recovery: 1 out of (20) outside limits.

1/ 1

E = Exceeds calibration range.

Comments:

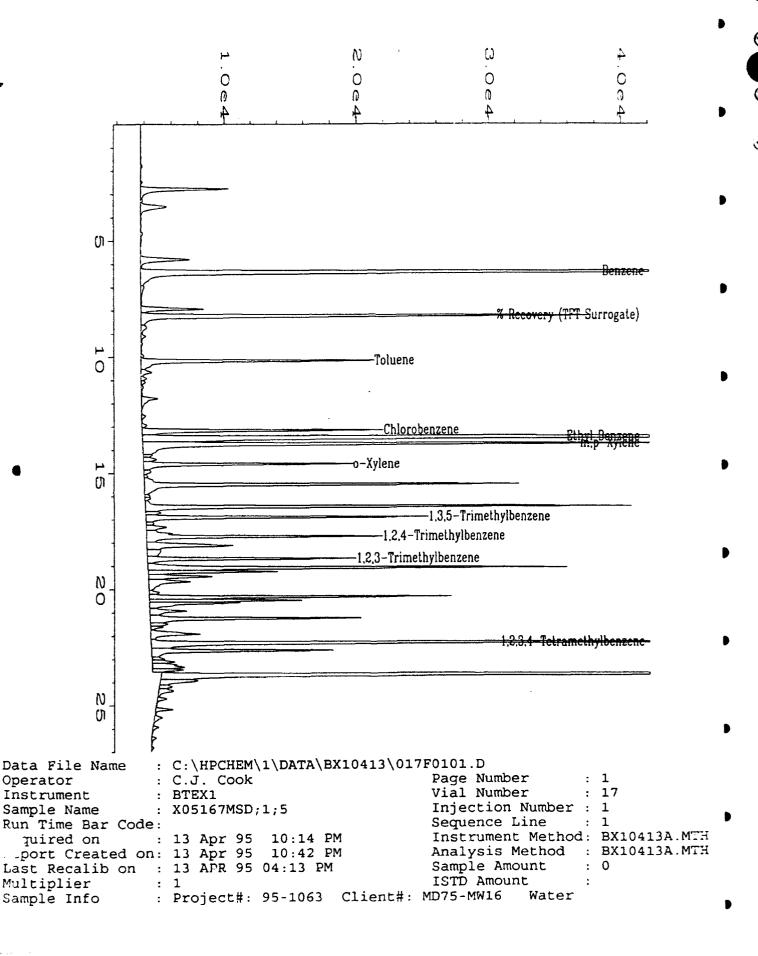
Approved MS1063A.XLS



(4)

Data File Name : C:\HPCHEM\1\DATA\BX10413\016F0101.D Operator : C.J. Cook Page Number Instrument : BTEX1 Vial Number : 16 Sample Name : X05167MS;1;5 Injection Number : 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 13 Apr 95 09:35 PM Report Created on: 13 Apr 95 10:02 PM Instrument Method: BX10413 Analysis Method : BX10413A.MT Last Recalib on : 13 APR 95 04:13 PM Sample Amount Multiplier ISTD Amount

Sample Info : Project#: 95-1063 Client#: MD75-MW16 Water



garan ya

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

BTEX Matrix Spike/Matrix Spike Duplicate Data Report

 Client Sample No.
 : MD75-MW24
 Client Project No.
 : 722450.2102

 Lab Sample No.
 : X05176
 Lab Project No.
 : 95-1063

 Date Sampled
 : 3/31/95
 EPA Method No.
 : 602

 Date Received
 : 4/1/95
 Matrix
 : Water

 Date Prepared
 : 4/14/95
 Lab File Number(s)
 : 8X1041443,44

Date Analyzed : 4/14/95 Method Blank : MB041495

	Spike	Sample	MS			ac
Compound	Added	Concentration	Concentration	- 1	MS	Limits
-	(ug/L)	(ug/L)	(ug/L)		%REC	%REC
Benzene	20.0	127.7 E	138.5	Ε	54.0	50-150
Toluene	20.0	3.1	19.6		82.5	50-148
Ethyl Benzene	20.0	**	**		* *	50-150
m,p-Xylene	40.0	0.0	57.0	Ī	142.5	50-150
o-Xylene	20.0	0.7	15.4		73.5	50-150
Chlorobenzene	20.0	2.9	18.8		79.5	55-135
1,3,5-TMB	20.0	0.0	15.0		75.0	50-150
1,2,4-TMB	20.0	2.1	18.3		81.0	50-150
1,2,3-TMB	20.0	1.6	16.7		75.5	50-1
1,2,3,4-TeMB	20.0	83.3 E	99.2	E	79.5	50-1

	Spike	MSD				C
Compound	Added	Concentration MSD RPD		RPD	Limits	
	(ug/L)	(ug/L)	%REC		RPD	%REC
Benzene	20.0	NA	NA	NA	25	50-150
Toluene	20.0	NA	NA	NA	25	50-148
Ethyl Benzene	20.0	NA	NA	NA	25	50-150
m,p-Xylene	40.0	NA	NA	NA	25	50-150
o-Xylene	20.0	NA	NA	NA	25	50-150
Chlorobenzene	20.0	NA	NA	NA	25	55-135
1,3,5-TMB	20.0	NA	NA	NA	25	50-150
1,2,4-TMB	20.0	NA	NA	NA	25	50-150
1,2,3-TMB	20.0	NA	NA	NA	25	50-150
1,2,3,4-TeMB	20.0	NA	NA	NA	25	50-150

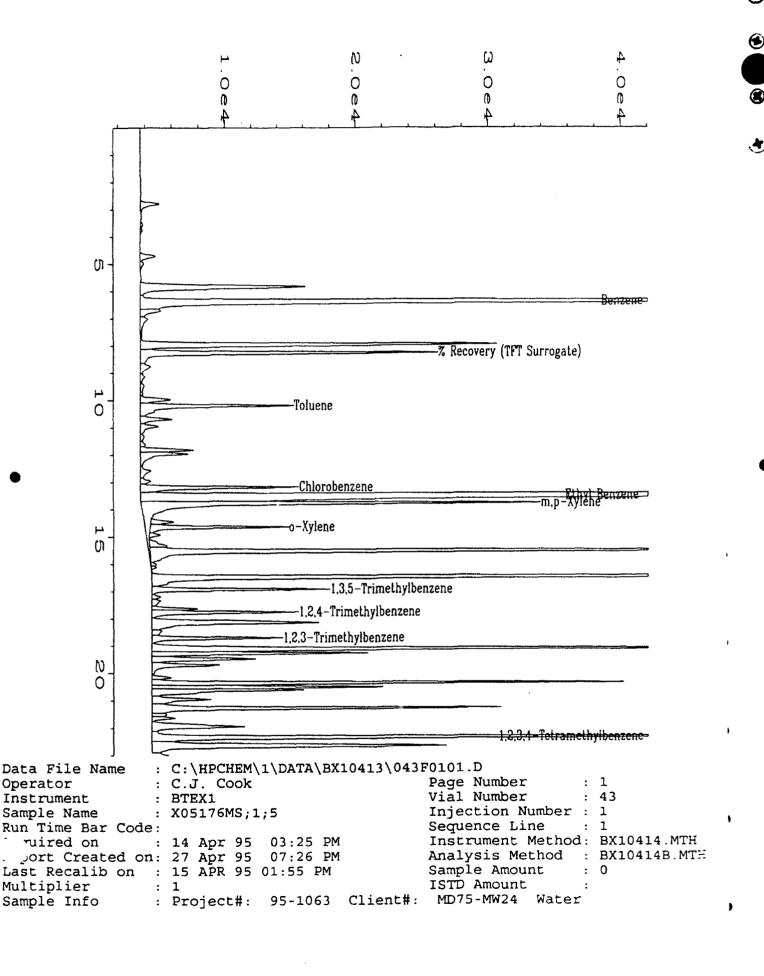
= Values outsid	e or QC armits.	
RPD:	0 out of (0) outside limits.	
Spike Recovery:	O out of (10) outside limits.	
Comments:	MSD did not purge properly. The surrogate recovery was 36%. See MS/MSD	
	MD75-MW16 and LCS041495. E = Exceeds the calibration range.	

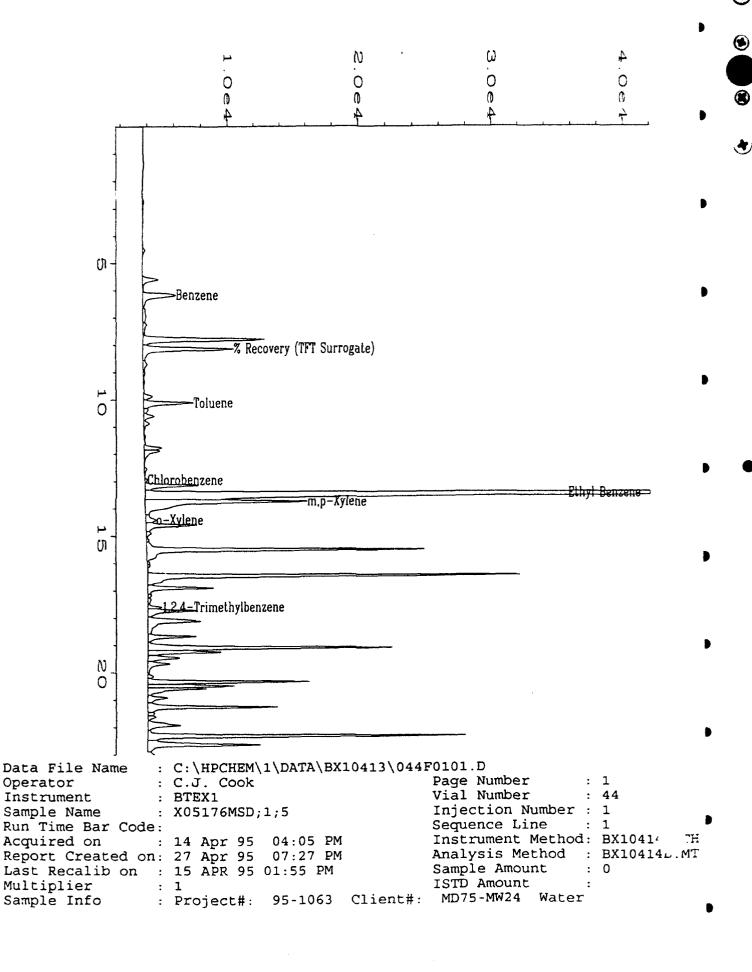
** = Results can not be used due to the high cor entration in the sample.

~ Cane

Approved

MS951063.XLS





Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS TVH Matrix Spike/Matrix Spike Duplicate Data Report

Client Sample No.

: MD75-MW24

Client Project No.

: 722450.21020/MAC

Lab Sample No.

: X05176

Lab Project No. EPA Method No. : 95-1063 : 5030/8015 Mod.

Date Sampled

: 3/31/95

Matrix

: Water

Date Received
Date Prepared

: 4/1/95

Method Blank

: MB041495

Date Analyzed

: 4/14/95 : 4/14/95

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	Ms	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Gasoline	2.00	3.50	4.62	56%	60-140

Compound	Spike Added	MSD Concentration	MS	RPD		DC mits
	(mg/L)	(mg/L)	%REC		RPD	%REC
Gasoline	2.00	5.80	115%	69 *	50	60-140

٠.	- \	/aluae	outside	٥f	20	limite
	≕ v	alues	OUISION	OT	u.	HIMITS.

RPD:

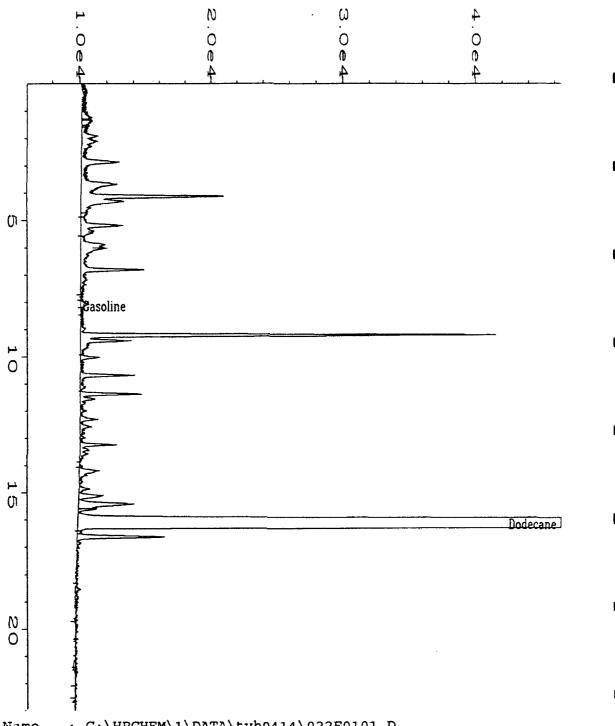
1 out of (1) outside limits.

Spike Recovery:

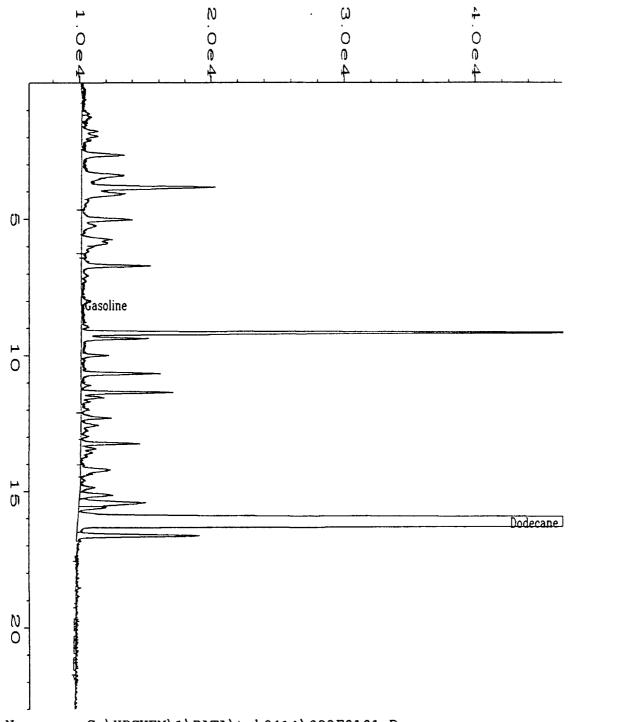
0 out of (2) outside limits.

Comments:

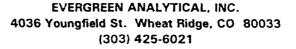
NA = Not analyzed/not applicable.



Data File Name : C:\HPCHEM\1\DATA\tvh0414\022F0101.D Operator : Dawn N. Guildner Page Number : 22 Instrument : TVH Vial Number Sample Name : X05176 MS Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 14 Apr 95 11:59 PM Report Created on: 16 Apr 95 02:39 PM Instrument Method: TVH1BA Analysis Method : TVH0415.aTF Last Recalib on : 16 APR 95 02:01 PM Sample Amount : 0 ISTD Amount Multiplier



Data File Name : C:\HPCHEM\1\DATA\tvh0414\023F0101.D Operator : Dawn N. Guildner Page Number Instrument Vial Number : 23 : TVH Injection Number: 1 Sample Name : X05176 MSD Sequence Line : 1 Instrument Method: TVH1BASE.MTH Run Time Bar Code: quired on quired on : 15 Apr 95 00:35 AM port Created on: 16 Apr 95 02:39 PM Analysis Method : TVH0415.MTH Last Recalib on : 16 APR 95 02:01 PM Sample Amount : 0 ISTD Amount Multiplier



Method 602 Data Report

Client Sample Number	: RINSEATE BLANK	Client Project No.	: 722450.21020/Mac [
Lab Sample Number	: X05182	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041350
		Method Blank No.	: MB041495

Compound Name	Cas Number	Sample Concentration	RL
Benzene	71-43-2	ug/L U	ug/L 0.4
Toluene	108-88-3	υ	0.4
Chlorobenzene	108-90-7	U	C 4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes	108-38-3, 106-42-3	U	0.4
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	υ	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (a,a,a-Trifluo	rotoluene):	94%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

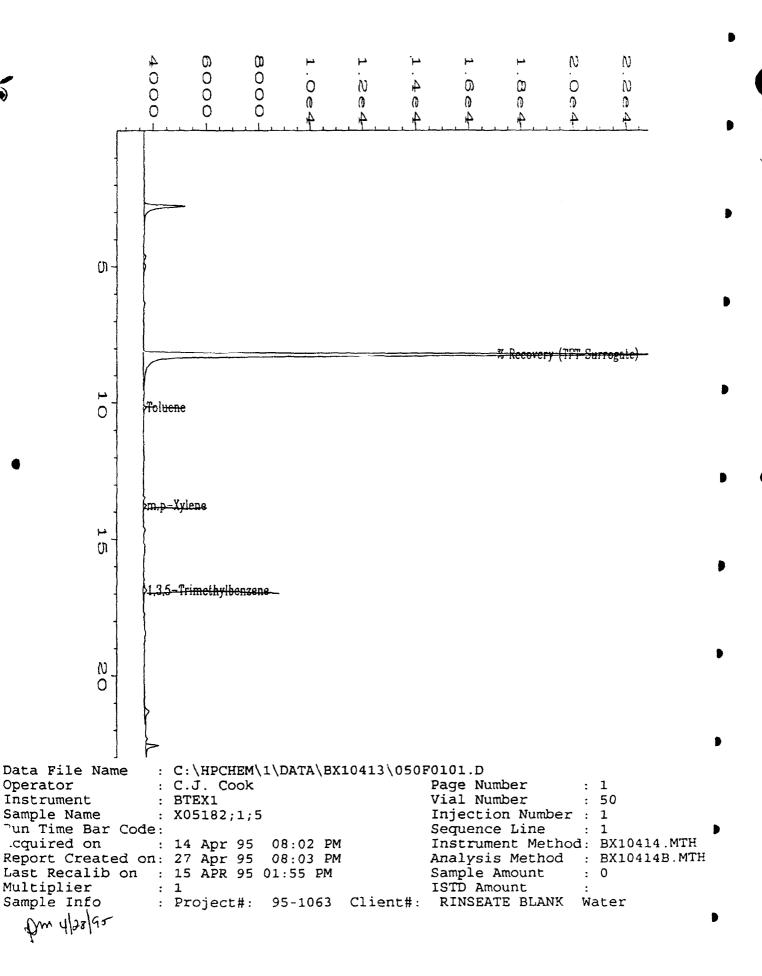
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved



Method 602 Data Report

Client Sample Number	: FIELD BLANK	Client Project No.	: 722450.21020/Mac C
Lab Sample Number	: X05181	Lab Project No.	: 95-1063
Date Sampled	: 3/31/95	Dilution Factor	: 1.00
Date Received	: 4/1/95	Method	: 602
Date Prepared	: 4/14/95	Matrix	: Water
Date Analyzed	: 4/14/95	Lab File No.	: BX1041348
		Method Blank No.	: MB041495

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	ſ
Benzene	71-43-2	U	0.4	•
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	υ	0.4	ı
Ethyl Benzene	100-41-4	U	0.4	•
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	-
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	
Surrogate Recovery (α,α,α-Trifluo	rotoluene):	92%	70%-130% (QC limits)	

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

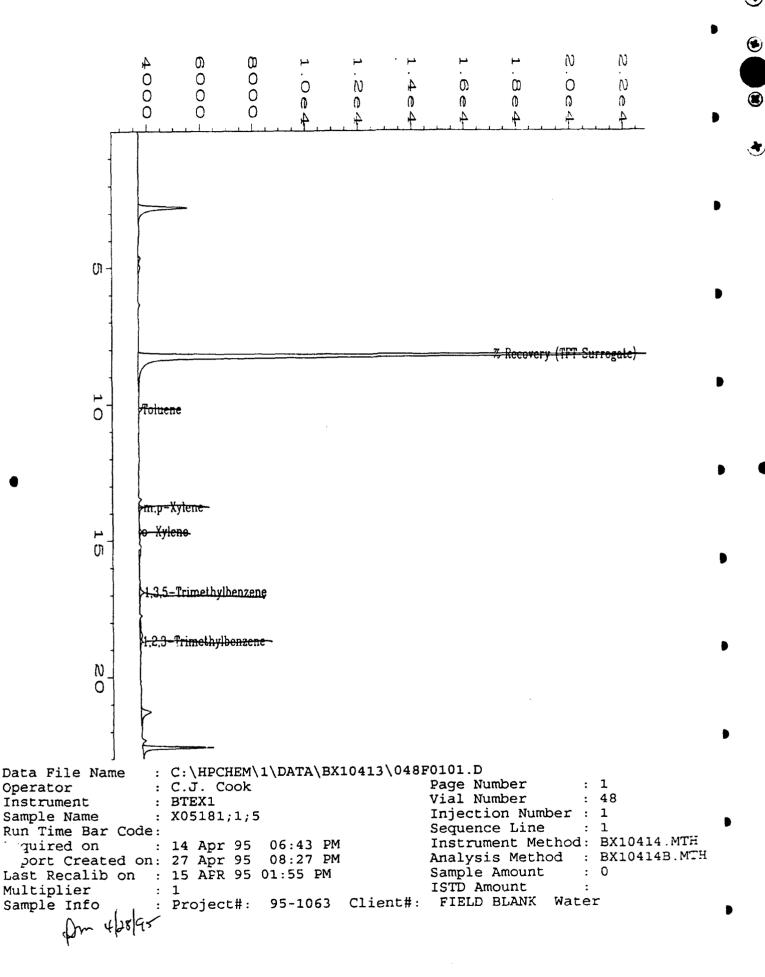
B = Compound also found in the blank.

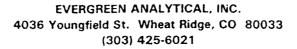
RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved





Method 602 Data Report

: Trip Blank	Client Project No.	: 722450.21020/Mac C
: X05170	Lab Project No.	: 95-1063
: 3/31/95	Dilution Factor	: 1.00
: 4/1/95	Method	: 602
: 4/13/95	Matrix	: Water
: 4/14/95	Lab File No.	: BX1041322
	Method Blank No.	: MB041395
	: X05170 : 3/31/95 : 4/1/95 : 4/13/95	: X05170 Lab Project No. : 3/31/95 Dilution Factor : 4/1/95 Method : 4/13/95 Matrix : 4/14/95 Lab File No.

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	Ŭ	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	
Ethyl Benzene	100-41-4	U	0.4	
Total Xylenes	108-38-3, 106-42-3 and 95-47-6	U	0.4	
(m, p & o) 1,3,5-Trimethylbenzene	108-67-8	υ	0.4	
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	υ	0.4	
Surrogate Recovery (\alpha,\alpha,\alpha-Trifluo	protoluene):	77%	70%-130% (QC limits)	

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

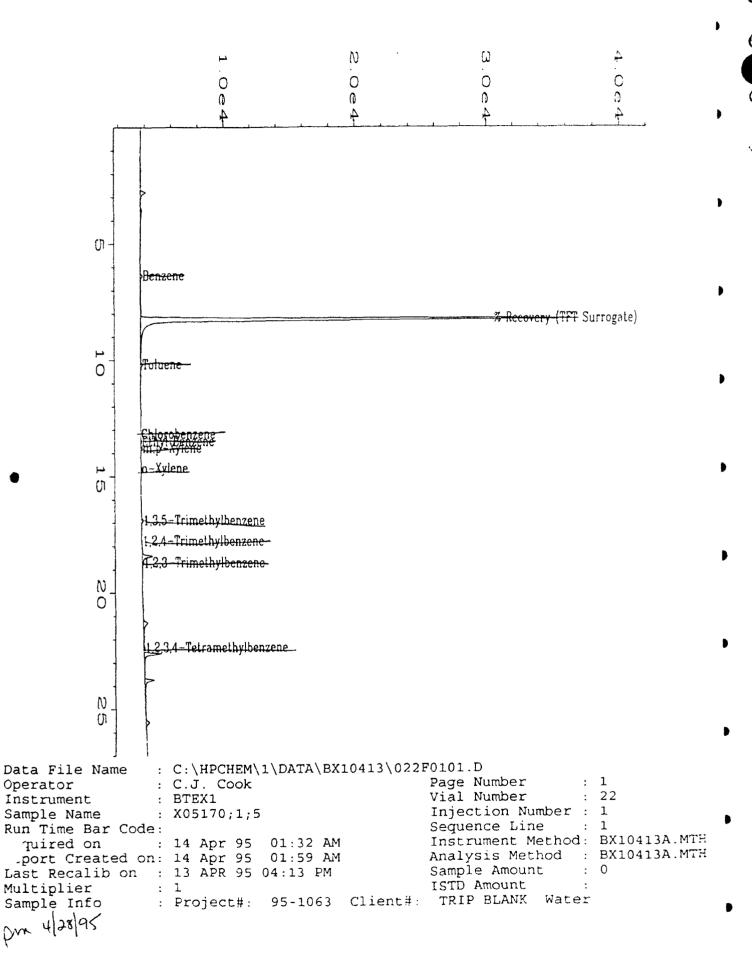
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Method 602 Data Report Method Blank Report

Method Blank Number

: MB041395

Client Project No.

: 722450.21020/Mac D

Date Prepared

: 4/13/95

Lab Project No.

: 95-1063

Date Analyzed

Dilution Factor

: 1.00

: 4/13/95

: 602/8020

Method Matrix

: Water

Lab File No.

: NV-F0101.D

Compound Name	Cas Number	Sample Concentration	RL
Benzene	71-43-2	ug/L U	ug/L 0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	ប	0.4
Ethyl Benzene	100-41-4	U	0.4
Total Xylenes	108-38-3, 106-42-3	U	0.4
(m, p & o)	and 95-47-6		
1,3,5-Trimethylbenzene	108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	υ	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4
Surrogate Recovery (α,α,α-Trifluo	rotoluene):	94%	70%-130% (QC limits)

Note: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

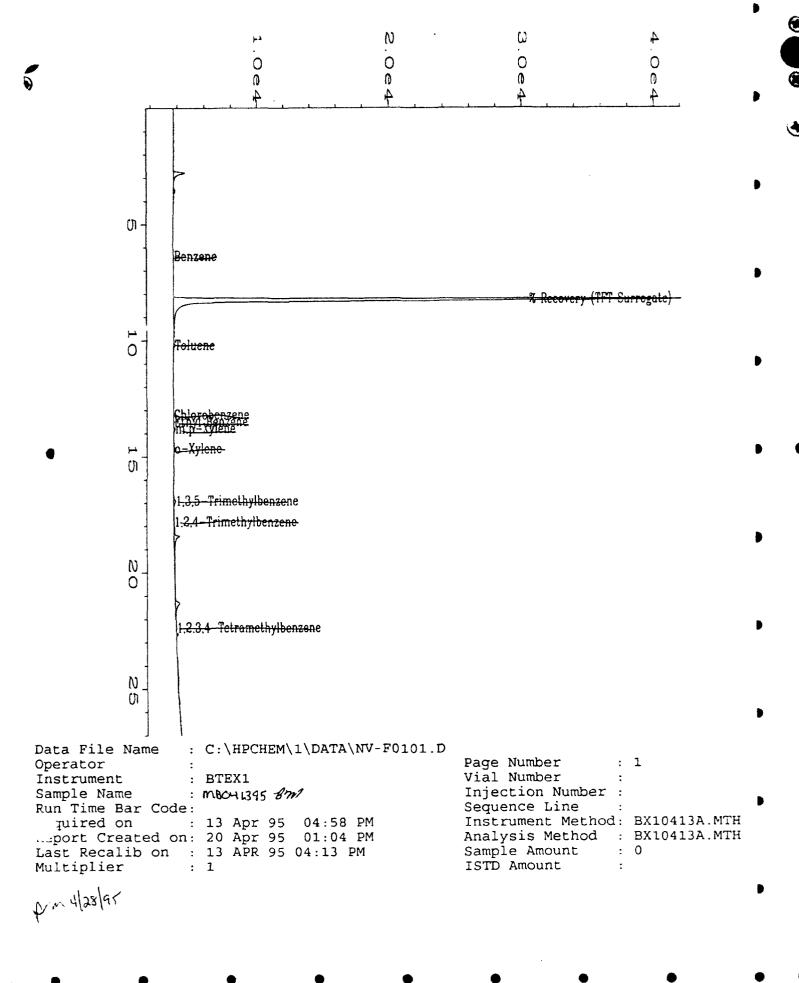
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

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Method 602 Data Report Method Blank Report

Method Blank Number

: MB041495

Client Project No.

: 722450.21020/Mac Di

Date Prepared

: 4/14/95

Lab Project No.

: 95-1063

Date Analyzed

: 4/14/95

Dilution Factor

: 1.00

Method

: 602/8020

Matrix

: Water

Lab File No.

: BX1041340

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	U	0.4	• ;
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	í
Ethyl Benzene	100-41-4	U	0.4	•
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6		2.4	
1,3,5-Trimethylbenzene	108-67-8	U	0.4	İ
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.4	1
Surrogate Recovery (a,a,a-Trifluo	rotoluene):	99%	70%-130% (QC limits)	-

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

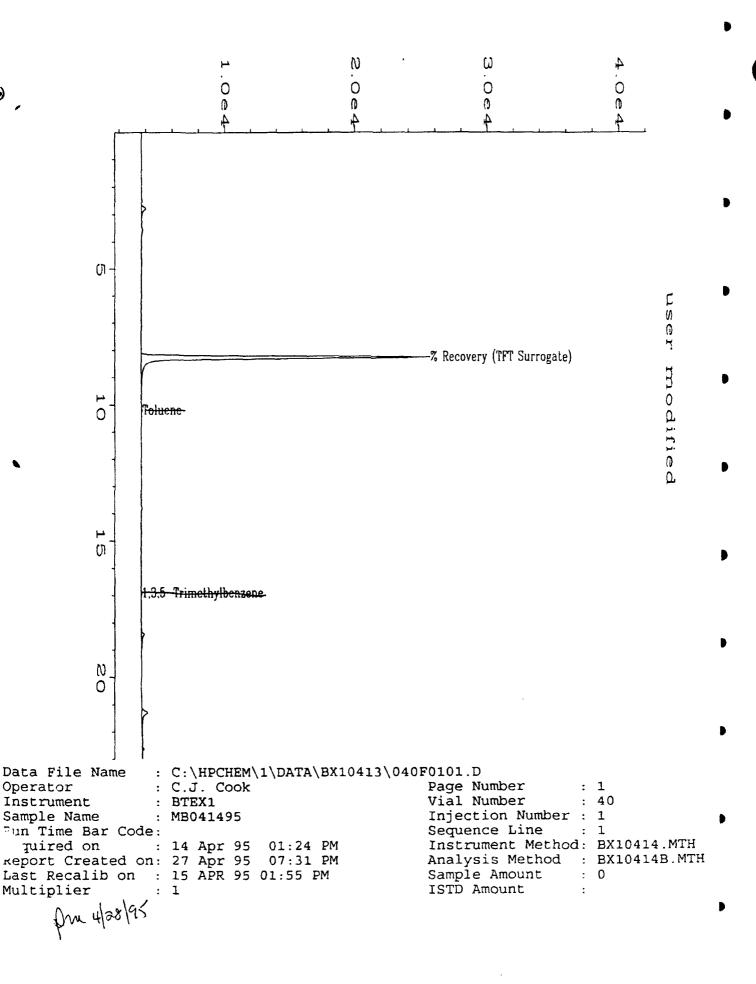
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report Laboratory Control Sample (LCS)

LCS Number: LCS041395Dilution Factor: 1.00Date Extracted/Prepared: 4/13/95Method: 602Date Analyzed: 4/13/95Matrix: Water

Spike Amount (ug/L) : 20.0 Lab File No. : BX1041308

Compound Name	Cas	LCS Concentration	LCS %	QC Limit	
	Number	ug/L	Recovery	% Recovery	
Benzene	71-43-2	16.3	81.5	71.0-119.0*	
Toluene	108-88-3	17.0	85.0	73.0-111.0*	
Chlorobenzene	108-90-7	17.3	86.5	64.0-119.0*	
Ethyl Benzene	100-41-4	17.3	86.5	75.0-114.0*	
m,p-Xylene	108-38-3	17.1	85.5	75.0-114.0*	
	106-42-3				
o-Xylene	95-47-6	16.9	84.5	64.0-115	
1,3,5-Trimethylbenzene	108-67-8	17.8	89.0	50.0-150.0	
1,2,4-Trimethylbenzene	95-63-6	18.4	92.0	50.0-150.0	
1,2,3-Trimethylbenzene	526-73-8	21.3	106.5	50.0-150.0	
1,2,3,4-Tetramethylbenzene	488-23-3	17.8	89.0	50.0-150.0	
Surrogate Recovery (α,α,α-Trifluor	otoluene):	91%	70%-130%	(QC limits)	

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

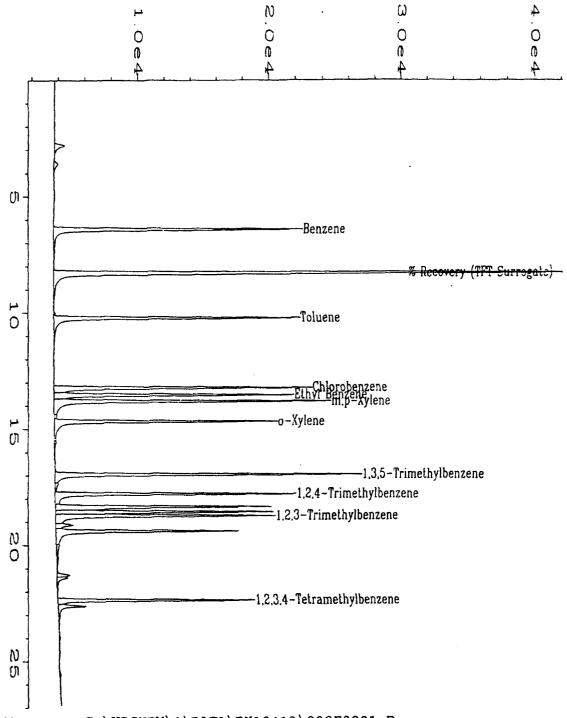
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

Analyst

Approved

^{* =} Limits established 4/3/95 KSC



: C:\HPCHEM\1\DATA\BX10413\008F0801.D ata File Name Page Number : 1 perator : C.J. Cook Vial Number nstrument : BTEX1 Injection Number: 1 ample Name : LCS041395 : 8 un Time Bar Code: Sequence Line Instrument Method: BX10413.MTH covired on : 13 Apr 95 04:19 PM t Created on: 13 Apr 95 05:01 PM Recalib on : 13 APR 95 04:13 PM Analysis Method : BX10413A.MTH

Sample Amount : 0 ISTD Amount ultiplier

EVERGREEN ANALYTICAL, INC. 4036 Youngfield St. Wheat Ridge, CO 80033 (303) 425-6021

BTEX Data Report Laboratory Control Sample (LCS)

: LCS041495 **LCS Number Dilution Factor** : 1.00 Date Extracted/Prepared : 4/14/95 Method : 602 **Date Analyzed** : 4/14/95 Matrix : Water Spike Amount (ug/L) : 20.0 Lab File No. : BX1041339

Compound Name	Cas	LCS Concentration	LCS %	QC Limit	
Benzene	Number 71-43-2	ug/L 15.8	Recovery 79.0	% Recovery 71.0-119.0*	
201120110	71-40-2		73.0	71.0-110.0	
Toluene	108-88-3	16.3	81.5	73.0-111.0*	
Chlorobenzene	108-90-7	16.1	80.5	64.0-119.0*	
Chlorobenzene	100-30-7	10.1	60.5	04.0-119.0	
Ethyl Benzene	100-41-4	16.3	81.5	75.0-114.0*	
m,p-Xylene	108-38-3	17.6	88.0	75.0-114.0*	
III,p-Xyleile	106-38-3	17.0	66.0	75.0-114.0	
o-Xylene	95-47-6	15.7	78.5	64.0-11′	
1,3,5-Trimethylbenzene	108-67-8	16.5	82.5	50.0-150.0	
1,2,4-Trimethylbenzene	95-63-6	16.8	84.0	50.0-150.0	
1,2,3-Trimethylbenzene	526-73-8	19.5	97.5	50.0-150.0	
1,2,3,4-Tetramethylbenzene	488-23-3	15.0	75.0	50.0-150.0	
Surrogate Recovery (α,α,α-Trif!uor	otoluene):	104%	70%-130%	(QC limits)	

QUALIFIERS:

E = Extrapolated value

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

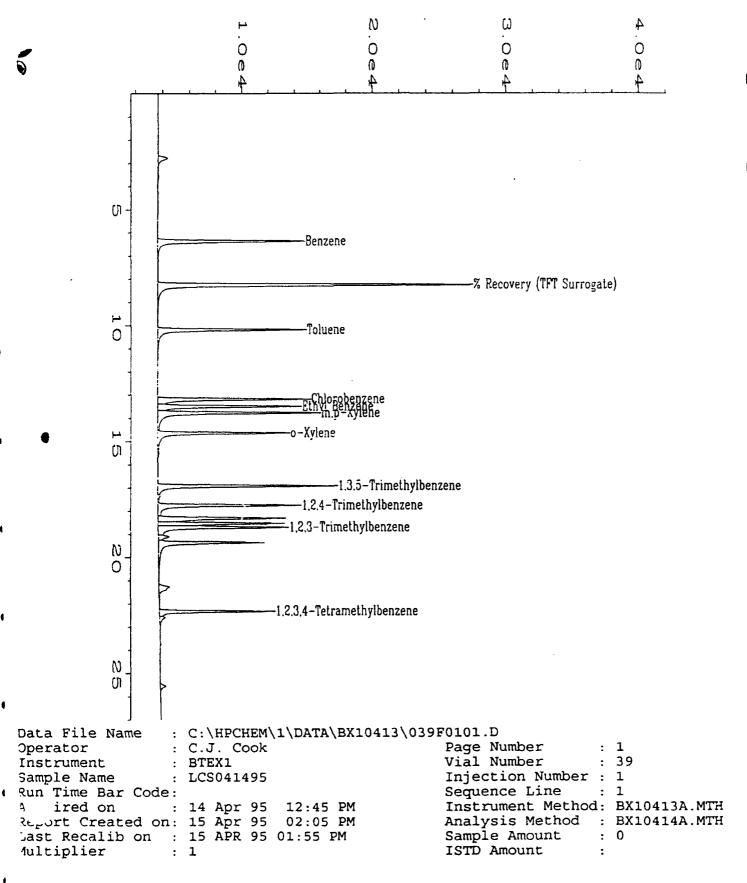
J = Indicates an estimated value when the compound is detected, but is below the Reporting Limit (RL).

NA = Not available/Not analyzed.

A-alica A

Approved

^{* =} Limits established 4/3/95 KSC



EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL VOLATILE HYDROCARBONS (TVH) Laboratory Control Sample (LCS)

LCS Number

: LCS041495

Matrix

: WATER

Date Prepared

: 4/14/95

Method Number

: 5030/MOD.8015

Date Analyzed

: 4/14/95

Sequence Number

: TVH7

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
Gasoline	5.00	4.93	99%	70%-130%

QUALIFIERS

U = TVH analyzed for but not detected.

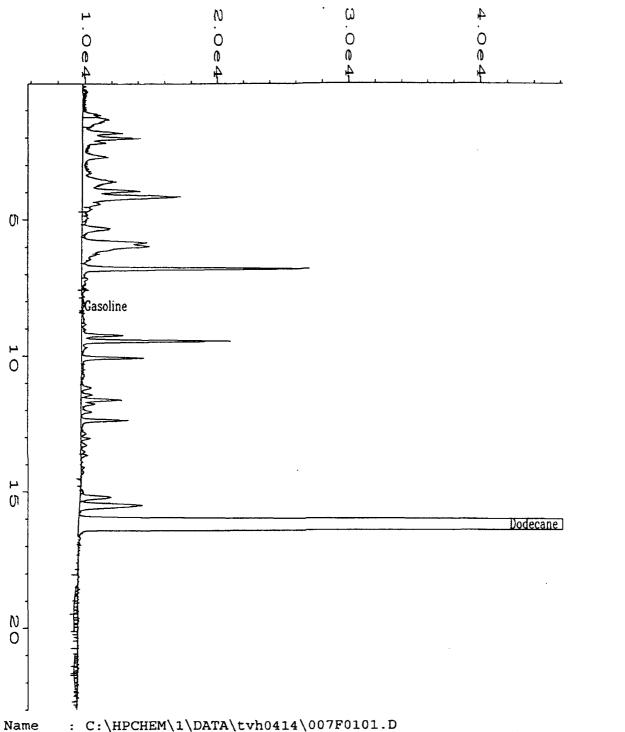
B = TVH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Analyst

Approved



Data File Name : Dawn N. Guildner Page Number Operator Vial Number Instrument : TVH Sample Name : LCS041495 Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Instrument Method: TVH1BASE.MTH .ired on : 14 Apr 95 02:59 PM Analysis Method : TVH0415.MTH Report Created on: 16 Apr 95 02:37 PM Sample Amount Last Recalib on : 16 APR 95 02:01 PM

ISTD Amount Multiplier

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH, as JET FUEL)

Date Sampled : 3/31/95 Client Project Number : 722450-21020 Date Received : 4/1/95 Lab Project Number : 95-1063

Date Analyzed : 4/4,5,6/95 Method Number : 3500/Mod.8015

Evergreen	Client	Surrogate	TEH	RL
Sample #	Sample #	Recovery	mg/L	mg/L
WB040395	WATER BLANK	75%	U	0.5
X05169	MD75-MW12	94%	3.1	0.5
X05172	MD75-MW8	110%	14	0.5
X05175	MD75-MW4	77%	15	0.5
X05178	24MP-2S	47%	4.0	0.5
X05178-R	24MP-2S	47%	3.9	0.5
X05179	MD24-MW6	61%	1.4	0.5
X05179-R	MD24-MW6	61%	1.3	0.5
X05183	MD24-MW2	45%	U	0.5
X05183-R	MD24-MW2	43%	U	0.5
X05184	MD24-MW26	53%	1.2	0.5
X05184-R	MD24-MW26	58%	1.4	0.5
X05185	MS/MSD	46%	U	0.5
X05185-R	MS/MSD	44%	υ	0.5

QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank.

E = Extrapolated value.

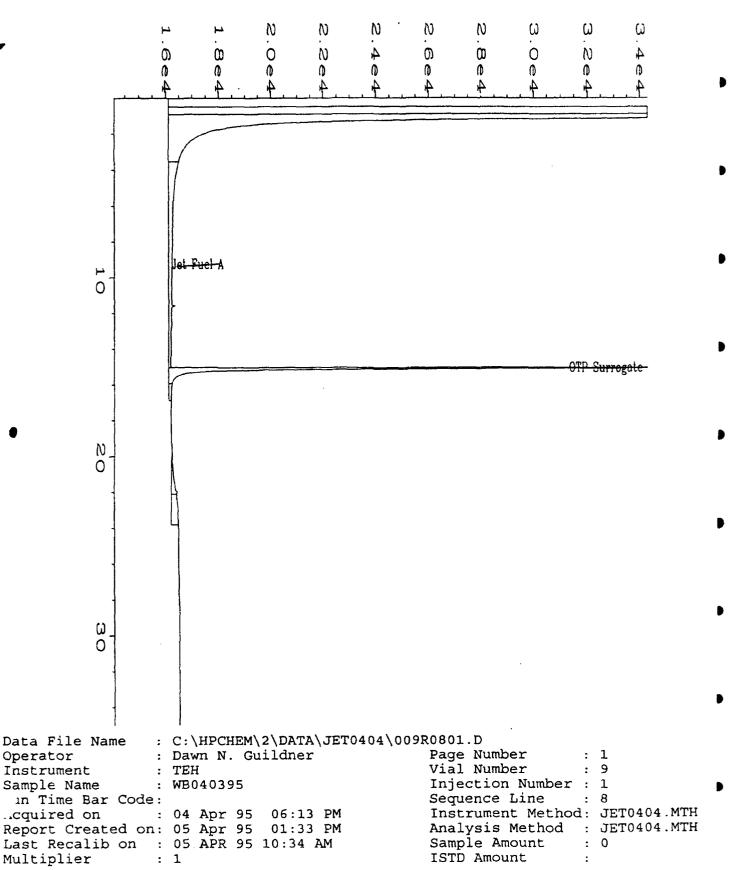
RL = Reporting Limit

R = Reanalysis of original sample extract.

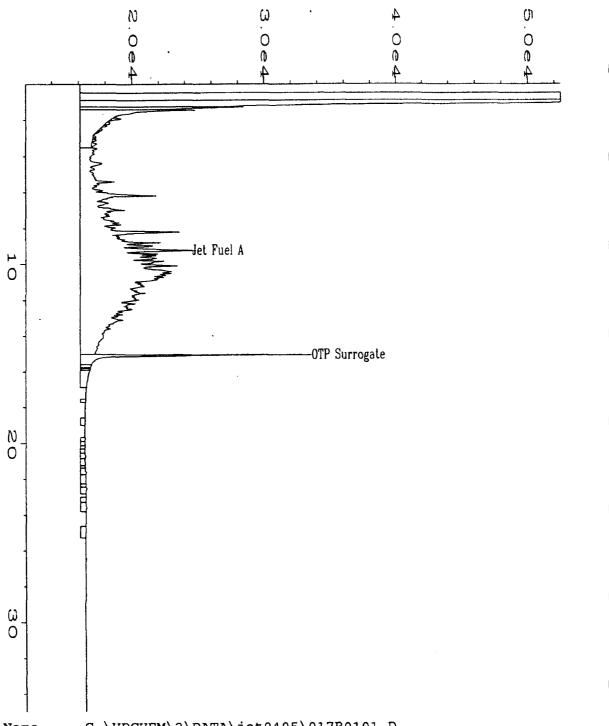
Analyst

Approved

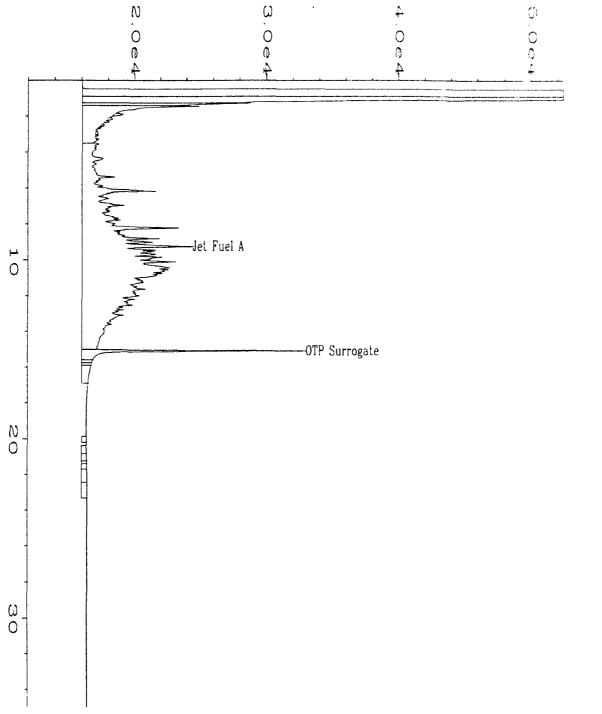
TEH1063.XLS



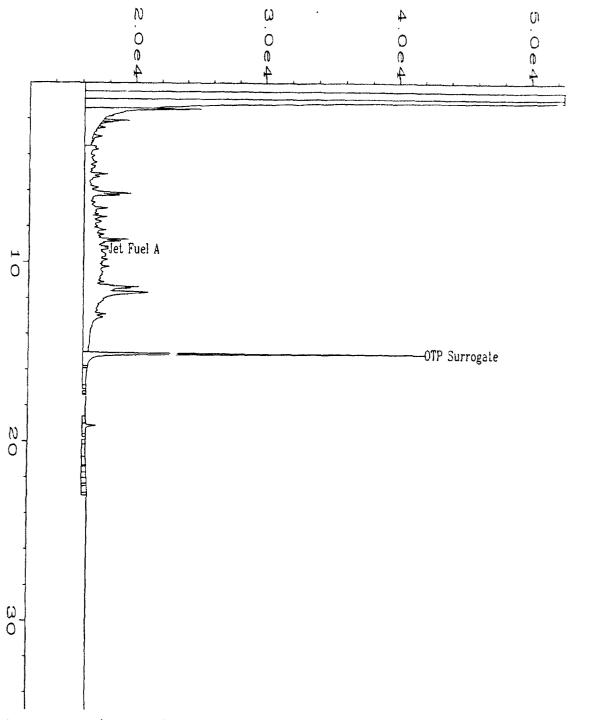
1. V. 4/22/95



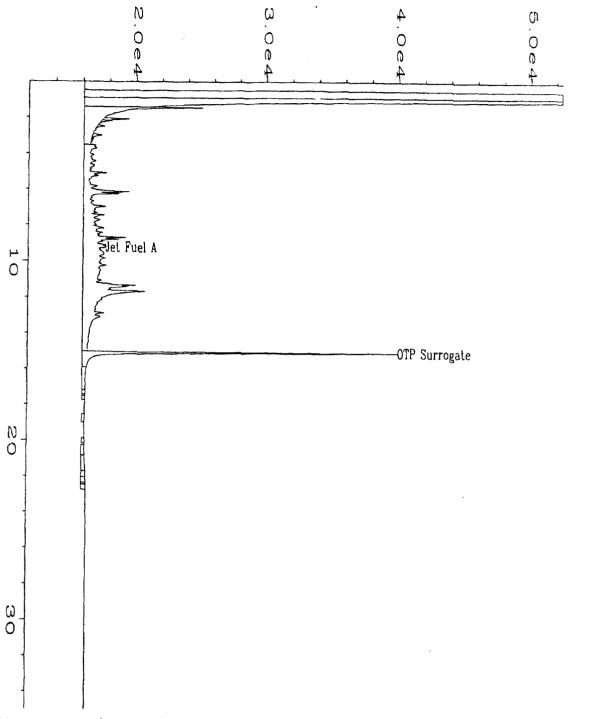
Data File Name : C:\HPCHEM\2\DATA\jet0405\017R0101.D : Dawn N. Guildner Page Number Operator Vial Number : 17 Instrument : TEH Injection Number: 1 Sample Name : X05178 DF=1 Sequence Line : 1 Run Time Bar Code: Instrument Method: FID1BA Acquired on : 06 Apr 95 00:11 AM : JET0405.MT Report Created on: 14 Apr 95 12:27 PM Analysis Method Sample Amount : 0 Last Recalib on : 06 APR 95 08:59 AM Multiplier ISTD Amount Sample Info : PROJECT # 95-1063 CLIENT #24MP-25 WATER



```
: C:\HPCHEM\2\DATA\jet0405\026R0101.D
Data File Name
Operator
                 : Dawn N. Guildner
                                               Page Number
Instrument
                 : TEH
                                               Vial Number
                                                                : 26
Sample Name
                                               Injection Number : 1
                : X05178 DF=1 −£
Time Bar Code:
                                               Sequence Line
                                                                : 1
 quired on
             : 06 Apr 95 12:52 PM
                                               Instrument Method: FID1BASE.MTH
Report Created on: 07 Apr 95 10:19 AM
                                               Analysis Method : JET0405.MTH
Last Recalib on : 06 APR 95 08:59 AM
                                               Sample Amount
Multiplier
                                               ISTD Amount
Sample Info
                : PROJECT # 95-1063 CLIENT #24MP-25 WATER
```

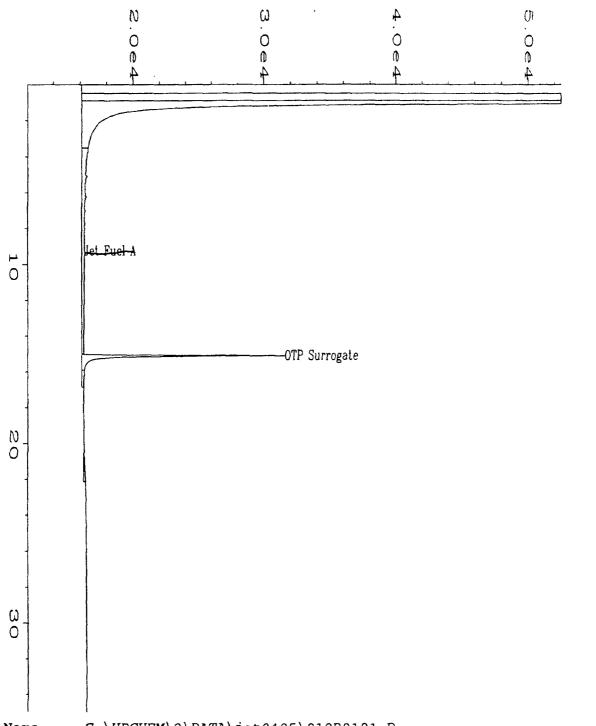


```
Data File Name
                 : C:\HPCHEM\2\DATA\jet0405\018R0101.D
Operator
                 : Dawn N. Guildner
                                                Page Number
                                                                  : 1
Instrument
                 : TEH
                                                Vial Number
                                                                  : 18
Sample Name
                 : X05179 DF=1
                                                Injection Number: 1
Run Time Bar Code:
                                                Sequence Line
                                                                  : 1
Acquired on
                : 06 Apr 95 01:01 AM
                                                Instrument Method: FID1B.
Report Created on: 14 Apr 95 12:27 PM
                                                Analysis Method : JET0405.MT
Last Recalib on : 06 APR 95 08:59 AM
                                                Sample Amount
                                                                  : 0
Multiplier
                 : 1
                                                ISTD Amount
Sample Info
                 : PROJECT # 95-1063 CLIENT # MD24-MW6 WATER
```



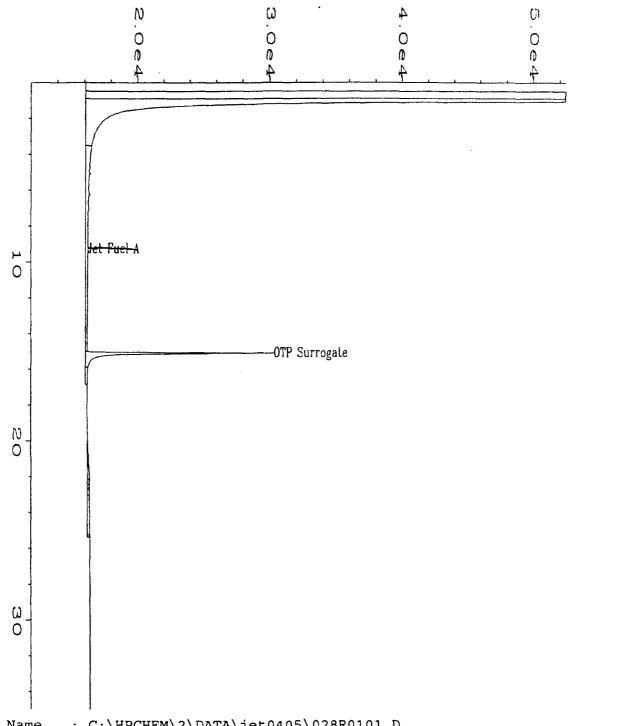
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Data File Name
                : C:\HPCHEM\2\DATA\jet0405\027R0101.D
Operator
                 : Dawn N. Guildner
                                                Page Number
Instrument
                 : TEH
                                                Vial Number
Sample Name
                 : X05179 DF=1 -R
                                                Injection Number: 1
 un Time Bar Code:
                                                Sequence Line
                                                                 : 1
.cquired on
                : 06 Apr 95 01:42 PM
                                                Instrument Method: FID1BASE.MTH
Report Created on: 07 Apr 95 10:19 AM
                                                Analysis Method : JET0405.MTH
Last Recalib on : 06 APR 95 08:59 AM
                                                Sample Amount
                                                                 : 0
Multiplier
                                                ISTD Amount
```

Sample Info : PROJECT # 95-1063 CLIENT # MD24-MW6 WATER



```
Data File Name
                : C:\HPCHEM\2\DATA\jet0405\019R0101.D
Operator
                 : Dawn N. Guildner
                                               Page Number
Instrument
                 : TEH
                                               Vial Number
                                                                : 19
Sample Name
                : X05183 DF=1
                                               Injection Number: 1
Run Time Bar Code:
                                               Sequence Line
                                                                : 1
Acquired on
              : 06 Apr 95 01:51 AM
                                                Instrument Method: FID1B
Report Created on: 14 Apr 95 12:27 PM
                                               Analysis Method : JET0405.MI
Last Recalib on : 06 APR 95 08:59 AM
                                               Sample Amount
                                                                 : 0
                                               ISTD Amount
Multiplier
Sample Info
                 : PROJECT # 95-1063 CLIENT # MD24-MW2 WATER
```

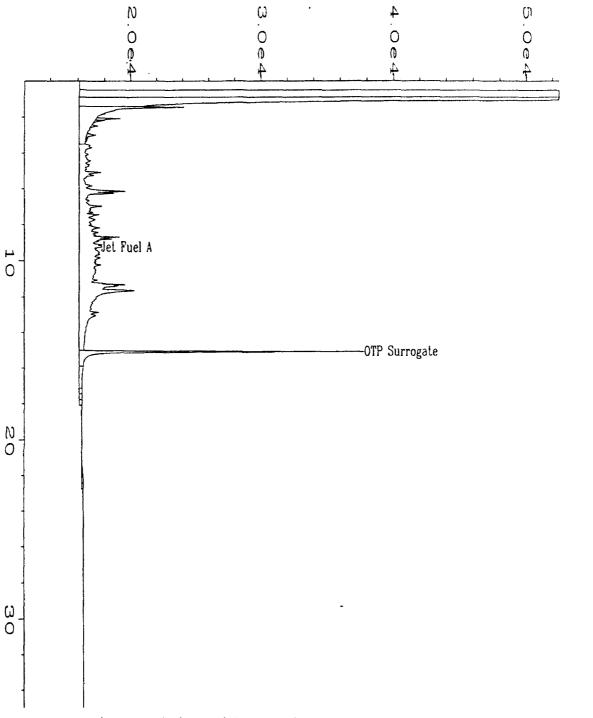
bu 1/20/dx



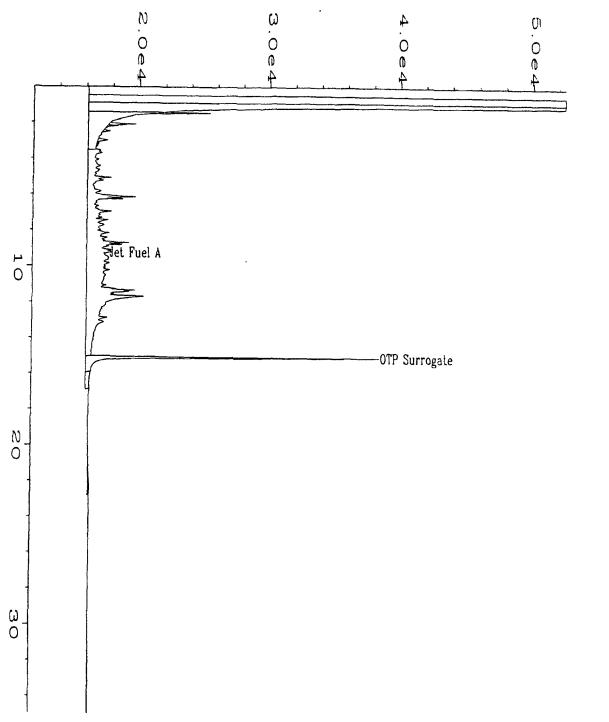
Data File Name : C:\HPCHEM\2\DATA\jet0405\028R0101.D Operator : Dawn N. Guildner Page Number Instrument Vial Number : TEH Sample Name : X05183 DF=1 -R Injection Number: 1 " 'n Time Bar Code: Sequence Line : 06 Apr 95 guired on 02:32 PM Instrument Method: FID1BASE.MTH Report Created on: 07 Apr 95 10:19 AM Analysis Method : JET0405.MTH Last Recalib on : 06 APR 95 08:59 AM Sample Amount Multiplier ISTD Amount

: PROJECT # 95-1063 CLIENT # MD24-MW2 WATER Sample Info

4/33/95



```
Data File Name
                 : C:\HPCHEM\2\DATA\jet0405\020R0101.D
Operator
                 : Dawn N. Guildner
                                                Page Number
Instrument
                                                Vial Number
                                                                 : 20
                 : TEH
Sample Name
                 : X05184 DF=1
                                                Injection Number: 1
Run Time Bar Code:
                                                Sequence Line
                                                                 : 1
Acquired on
                : 06 Apr 95 02:40 AM
                                                Instrument Method: FID1E
Report Created on: 14 Apr 95 12:27 PM
                                                Analysis Method : JET0405.M
Last Recalib on : 06 APR 95 08:59 AM
                                                Sample Amount
                                                                 : 0
Multiplier
                                                ISTD Amount
Sample Info
                 : PROJECT # 95-1063 CLIENT # MD24-MW26 WATER
```

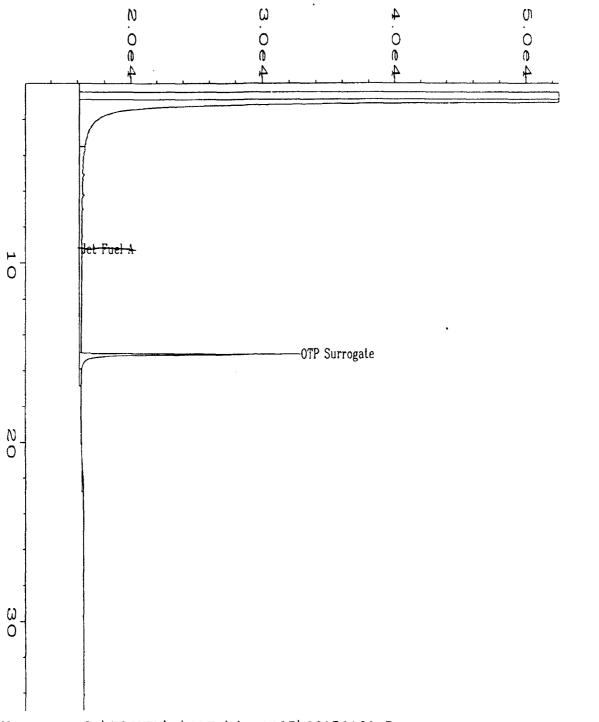


```
Data File Name : C:\HPCHEM\2\DATA\jet0405\029R0101.D
Operator
                 : Dawn N. Guildner
                                                  Page Number
Instrument
                 : TEH
                                                  Vial Number
Sample Name
                 : X05184 DF=1
                                                  Injection Number: 1
Pun Time Bar Code:
                                                  Sequence Line
Equired on : 06 Apr 95 03:22 PM Report Created on: 07 Apr 95 10:19 AM
                                                  Instrument Method: FID1BASE.MTH
                                                  Analysis Method : JET0405.MTH
Last Recalib on : 06 APR 95 08:59 AM
                                                  Sample Amount
Multiplier
                                                  ISTD Amount
Sample Info
                 : PROJECT # 95-1063 CLIENT # MD24-MW26 WATER
```

•

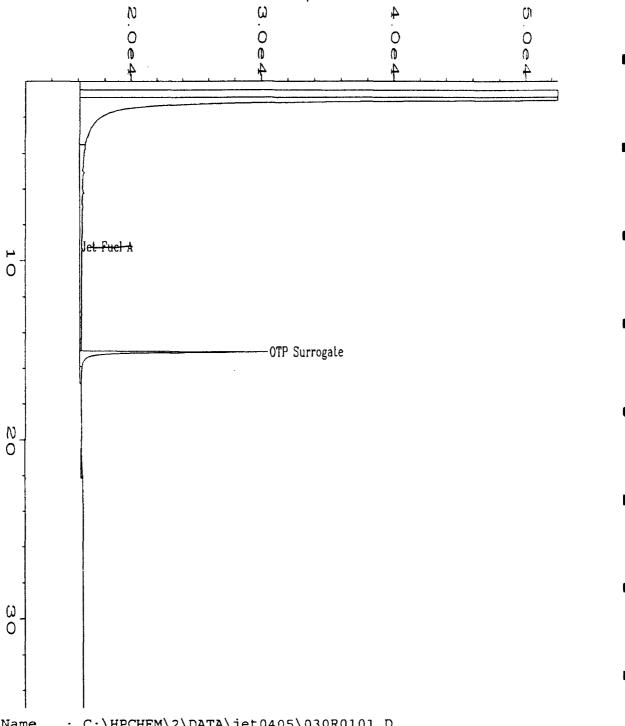
.

3



```
Data File Name
                 : C:\HPCHEM\2\DATA\jet0405\021R0101.D
Operator
                 : Dawn N. Guildner
                                                Page Number
Instrument
                   TEH
                                                Vial Number
Sample Name
                 : X05185 DF=1
                                                Injection Number : 1
Run Time Bar Code:
                                                Sequence Line
Acquired on
                : 06 Apr 95 03:30 AM
                                                Instrument Method: FID1BA:
                                                Analysis Method : JET0405.MT
Report Created on: 14 Apr 95 12:27 PM
Last Recalib on : 06 APR 95 08:59 AM
                                                Sample Amount
                                                                 : 0
Multiplier
                                                ISTD Amount
Sample Info
                 : PROJECT # 95-1063 CLIENT # MS/MSD WATER
```

20/46/pm ma



Data File Name : C:\HPCHEM\2\DATA\jet0405\030R0101.D Operator : Dawn N. Guildner Page Number Instrument Vial Number : 30 : TEH : X05185 DF=1 - R Sample Name Injection Number: 1 `un Time Bar Code: Sequence Line : 1 cquired on : 06 Apr 95 04:11 PM Instrument Method: FID1BASE.MTH Analysis Method : JET0405.MTH Report Created on: 07 Apr 95 10:20 AM Last Recalib on : 06 APR 95 08:59 AM Sample Amount : 0 Multiplier ISTD Amount Sample Info : PROJECT # 95-1063 CLIENT # MS/MSD WATER

m 4/32/95

EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH) Laboratory Control Sample (LCS)

LCS Number

: LCS040495

Matrix

: WATER

Date Prepared

: 4/3/95

Method Number

: 3500/MOD.8015

Date Analyzed Sequence Number : 4/5/95 : JET10

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
JET FUEL	1000	855	86%	70%-130%

QUALIFIERS

U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

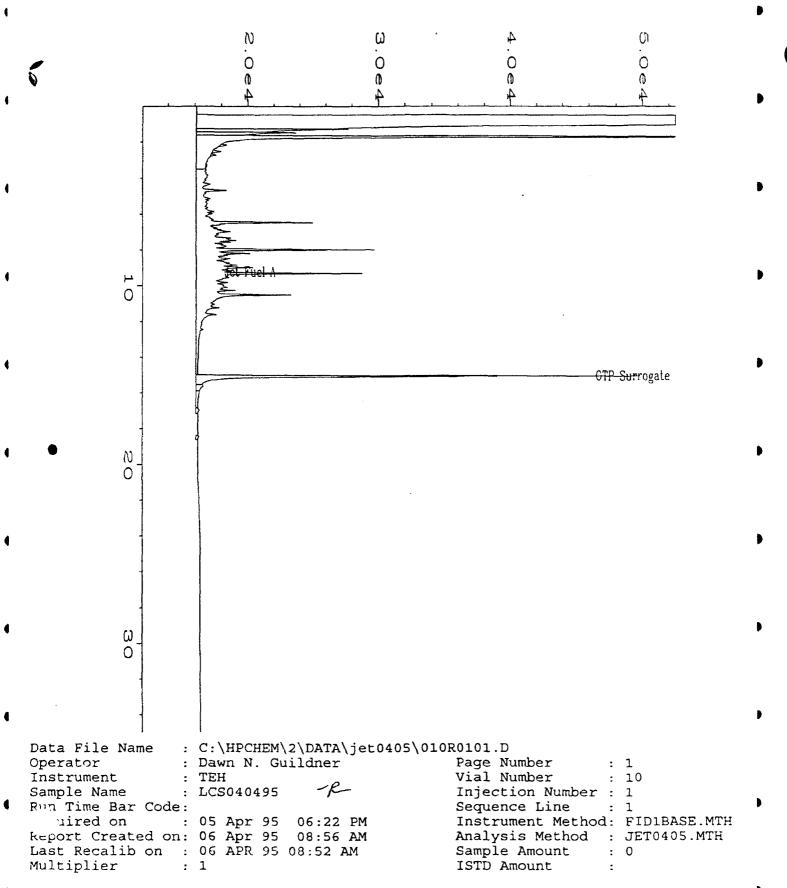
E = Extrapolated value.

NA = Not Available.

Analyst

Approved

Clell



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EVERGREEN ANALYTICAL, INC. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

TOTAL EXTRACTABLE HYDROCARBONS (TEH) Laboratory Control Sample (LCS)

LCS Number

: LCS040495

Matrix

: WATER

Date Prepared

: 4/3/95

Method Number

: 3500/MOD.8015

Date Analyzed

: 4/4/95

Sequence Number : JET10

Compound Name	Theoretical Concentration mg/L	LCS Concentration mg/ L	LCS % Recovery	QC Limit % Recovery
JET FUEL	1000	834	83%	70%-130%

QUALIFIERS

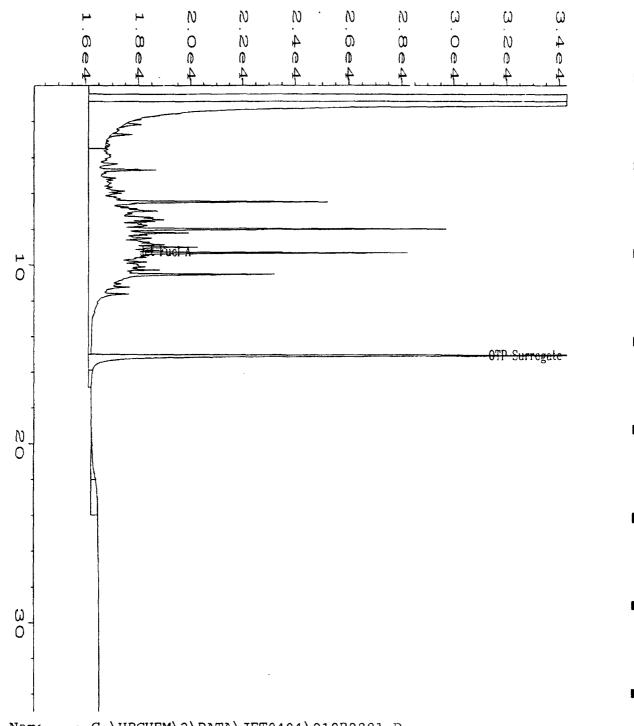
U = TEH analyzed for but not detected.

B = TEH found in blank as well as sample (blank data should be compared).

E = Extrapolated value.

NA = Not Available.

Approved



Equired on : 04 Apr 95 07:03 PM Instrument Method: JET0404.MTH Report Created on: 05 Apr 95 01:33 PM Analysis Method : JET0404.MTH

Last Recalib on : 05 APR 95 10:34 AM Sample Amount : 0 Multiplier : 1 ISTD Amount :

External Standard Report

Data File Name : C:\HPCHEM\2\DATA\BX20415\014R0101.D

Operator : T. Lockwood Page Number : 1
Instrument : BTEX2 Vial Number : 14
Sample Name : X05176;50;0.1 Injection Number : 1

Run Time Bar Code:

Acquired on : 15 Apr 95 08:36 PM Instrument Method: BX20415.MTF Report Created on: 16 Apr 95 04:42 PM Analysis Method : BX20415A.MT

Last Recalib on : 16 Apr 95 03:38 PM Sample Amount : 0 Multiplier : 1 X ISTD Amount :

Sig. 2 in $C:\HPCHEM\2\DATA\BX20415\014R0101.D$

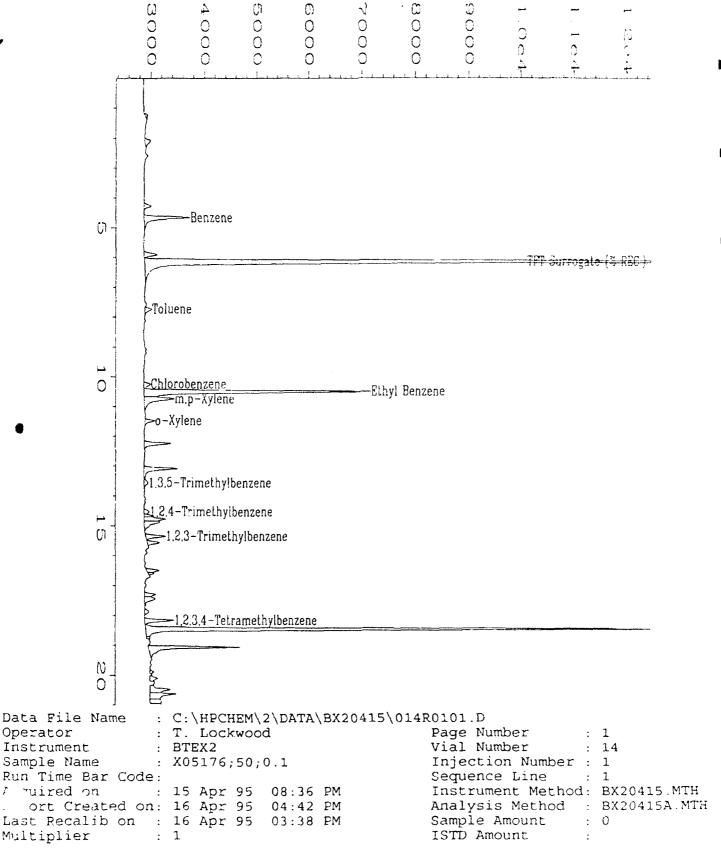
Ret Time	Area	Type	Width	Ref#	ug/L	Name
-						
4.660	5594	BB	0.098	1	1.914	Benzene XSC
6.143	86867	VB	0.096	1-R	87.270	TFT Surrogate (% REC.)
7.728	902	VB	0.104	1	0.350	Toluene
10.247	810	BV	0.102	1	0.373	Chlorobenzene
10.493	24823	VV	0.089	1	10.830	Ethyl Benzene ×50
10.741	4517	VB	0.116	1		m, p-xylene)
11.477	958	BB	0.084	1	0.431	o-Xylene / Ck uso
13.561	724	VB	0.149	1	0.223	1,3,5-Trimethylbenzene
14.531	656	BV	0.113	1	0.296	1,2,4-Trimethylbenzene
15.354	1942	PV	0.085	1	0.969	1,2,3-Trimethylbenzene
18.173	2698	ΡV	0.079	1	1.446	1,2,3,4-Tetramethylbenzene

Time Reference Peak Expected RT Actual RT Difference 2 6.120 6.143 0.023

Holding alime up

not used

Sequence Line



Operator Instrument

Sample Name

/ ruired on

Multiplier

External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10417\017\F1001.D

Page Number : C.J. Cook Operator Instrument : BTEX1 Vial Number : X05175;20;0.250_ Injection Number: 1 Sample Name

Run Time Bar Code: Sequence Line : 10

: 17 Apr 95 04:31 PM Instrument Method: BX10417A.N Acquired on Report Created on: 17 Apr 95 07:29 PM Analysis Method : BX10417B.M Last Recalib on : 17 APR 95 07:07 PM Sample Amount

ISTD Amount Multiplier : 20 Sample Info : Project#: 95-1063 Client#: MD75-MW4 Water

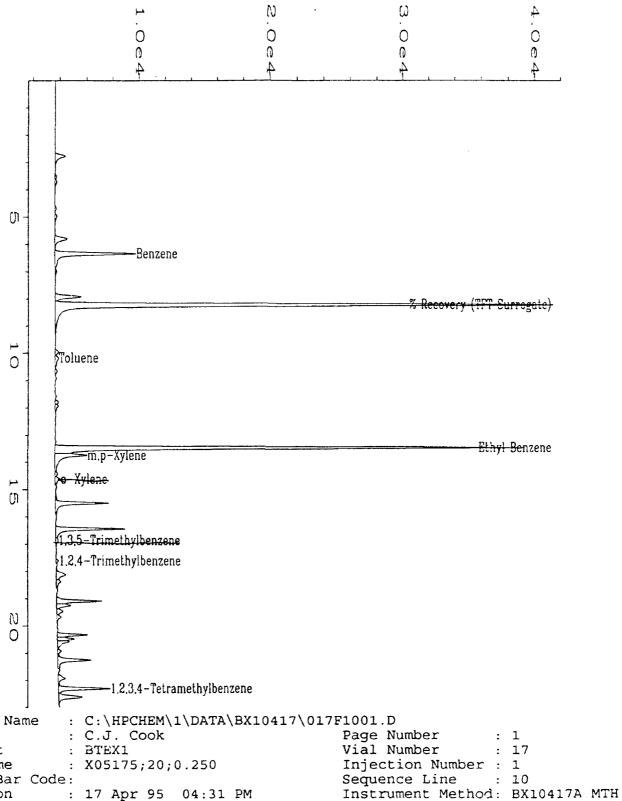
Sig. 1 in C:\HPCHEM\1\DATA\BX10417\017F1001.D

Ret Time	Area	Ту	pe Width	Ref#	ug/L	Name
6.333	4	3572 VV	0.107	1		Benzene
8.218	26	1271 VV	0.106	1-R	1699.725	% Recovery (TFT Surrogate) &S:
10.172		3841 VV	0.196	1	9.015	Toluene
13.196	* not fo	und *		1		Chlorobenzene
13.464	20	9657 VV	0.091	1	583.727	Ethyl Benzene
13.741	2	3300 VV	0.134	1	52.583	m,p-Xylene
14.613		3728 VV	0.129	1	9.673	o-Xylene
16.871		1985 VV	0.165	1	4.440	1,3,5-Trimethylbenzene
17.610		1119 PV	0.094	1	3.417	1,2,4-Trimethylbenzene
18.722	* not fo	und *		1		1,2,3-Trimethylbenzene
22.301	2	2466 VV	0.089	1	92.176	1,2,3,4-Tetramethylbenzene

Time Reference Peak Expected RT Actual RT Difference 8.275 8.218 -0.057 2

Not all calibrated peaks were found

Holding not used pro



Data File Name Operator Instrument Sample Name Run Time Bar Code: : 17 Apr 95 04:31 PM quired on _port Created on: 17 Apr 95 07:30 PM Analysis Method : BX10417B.MTH Last Recalib on : 17 APR 95 07:07 PM Sample Amount : 0 : 20 ISTD Amount Multiplier : Project#: 95-1063 Client#: MD75-MW4 Sample Info

External Standard Report

Data File Name : C:\HPCHEM\1\DATA\BX10417\016F1001.D

Operator : C.J. Cook Page Number : 1

Instrument : BTEX1 Vial Number : 16

Sample Name : X05174(20;0.250 Injection Number : 1

Run Time Bar Code: Sequence Line : 10

Acquired on : 17 Apr 95 03:51 PM Instrument Method: BX10417A.M. Report Created on: 17 Apr 95 07:28 PM Analysis Method : BX10417B.M.

Last Recalib on : 17 APR 95 07:07 PM Sample Amount : 0 Multiplier : 20 ISTD Amount :

Sample Info : Project#: 95-1063 Client#: 75MP-45 Water

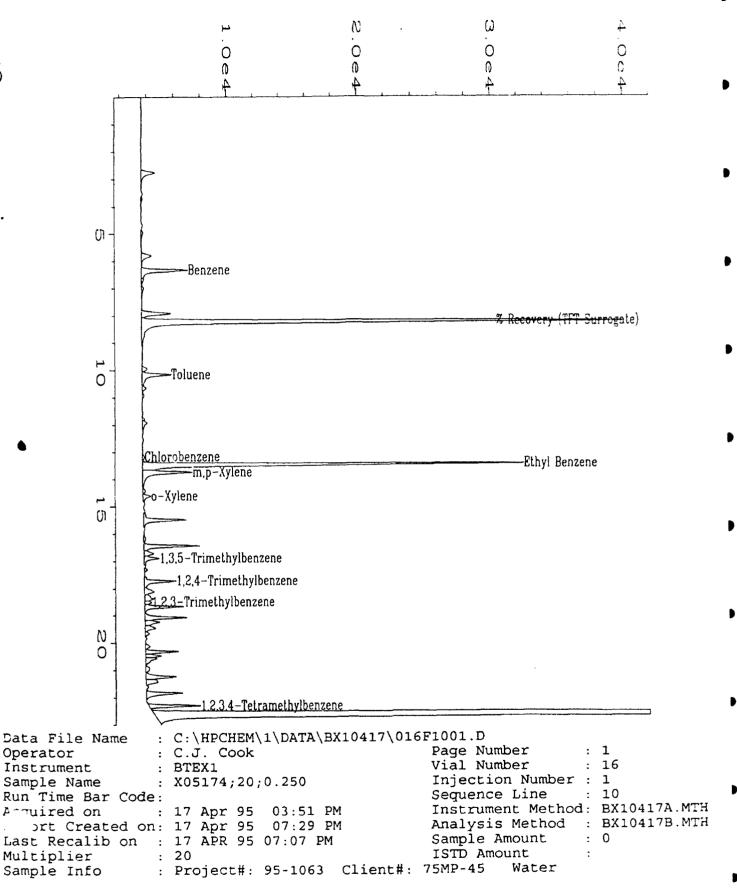
Sig. 1 in C:\HPCHEM\1\DATA\BX10417\016F1001.D

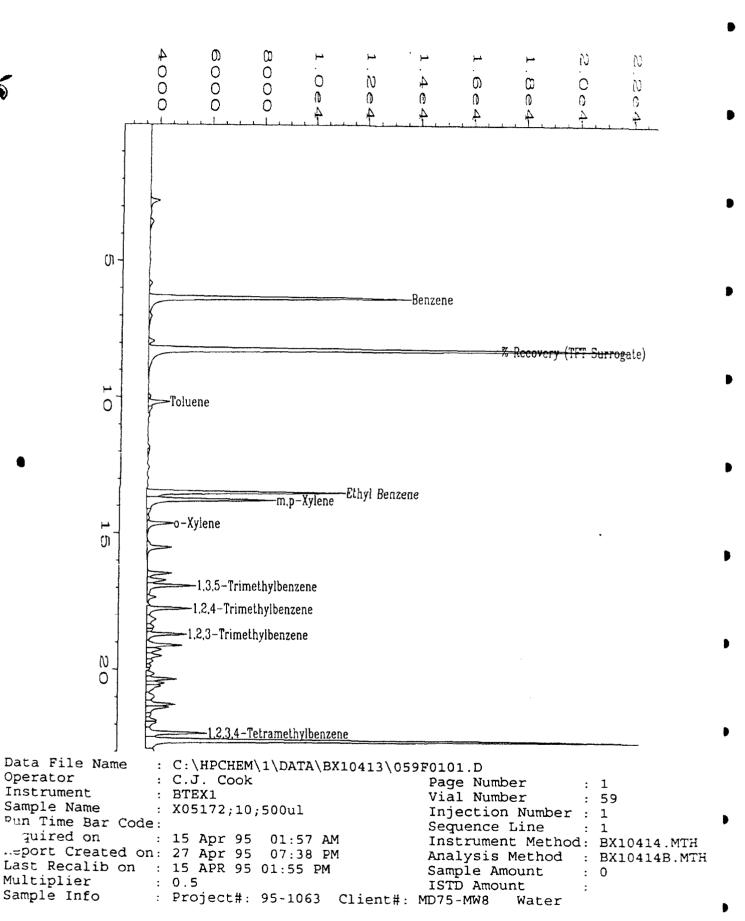
Ret Time	Area	Type	Width	Ref#	ug/L	Name
6.330	24882	VV	0.107	1	53.885	Benzene
8.213	252850	VV	0.106	1-R	1644.939	% Recovery (TFT Surrogate) \$2/
10.151	16893	VV	0.114	1	39.647	Toluene
13.169	1325	VV	0.151	1	3.616	Chlorobenzene
13.456	165067	VV	0.088	1	459.579	_Ethyl Benzene
13.738	29452	VV	0.115	1	66.467	m,p-Xylene
14.606	4565	VV	0.114	1	11.847	o-Xylene
16.889	7670	VV	0.102	1	17.154	1,3,5-Trimethylbenzene
17.726	15398	VV	0.096	1	47.038	1,2,4-Trimethylbenzene
18.503	2959	VV	0.087	1	9.089	1,2,3-Trimethylbenzene
22.302	19127	ΡV	0.079	1	78.479	1,2,3,4-Tetramethylbenzene

Time Reference Peak Expected RT Actual RT Difference 2 8.275 8.213 -0.062

Holding Time

not used





Data File Name : C:\HPCHEM\1\DATA\BX10417\\$\frac{15}{15}P1001.D

Operator : C.J. Cook Page Number : 1
Instrument : BTEX1 Vial Number : 15
Sample Name : X05173;20;0.250 Injection Number : 1

Run Time Bar Code: Sequence Line : 10

Acquired on : 17 Apr 95 03:12 PM Instrument Method: BX10417A.M Report Created on: 17 Apr 95 07:28 PM Analysis Method : BX10417B.M

Last Recalib on : 17 APR 95 07:07 PM Sample Amount : 0 Multiplier : 20 ISTD Amount :

Sample Info : Project#: 95-1063 Client#: MD75-MW14 Water

Sig. 1 in $C:\HPCHEM\1\DATA\BX10417\015F1001.D$

Ret Time	Area	Type	Width	Ref#	ug/L	Name
						Panzana A
6.329	80094	VV	0.108	1	173.451	Benzene A T
8.214	279353	VV	0.107	1-R	1817.356	% Recovery (TFT Surrogate) 9/
10.158	2133	VV	0.192	1	5.006	Toluene
13.196	* not found	*		1		Chlorobenzene
13.453	118673	VV	0.090	1	330.408	_Ethyl Benzene
13.732	14373	VV	0.144	1	32.436	m,p-Xylene B
14.603	2380	VV	0.141	1	6.176	o-Xylene
16.876	2003	VV	0.149	1	4.479	1,3,5-Trimethylbenzene
17.775	* not found	*		1.		1,2,4-Trimethylbenzene
18.670	1658	VV	0.120	1	5.092	1,2,3-Trimethylbenzene
22.293	15313	ΡV	0.089	1	62.829	1,2,3,4-Tetramethylbenzene

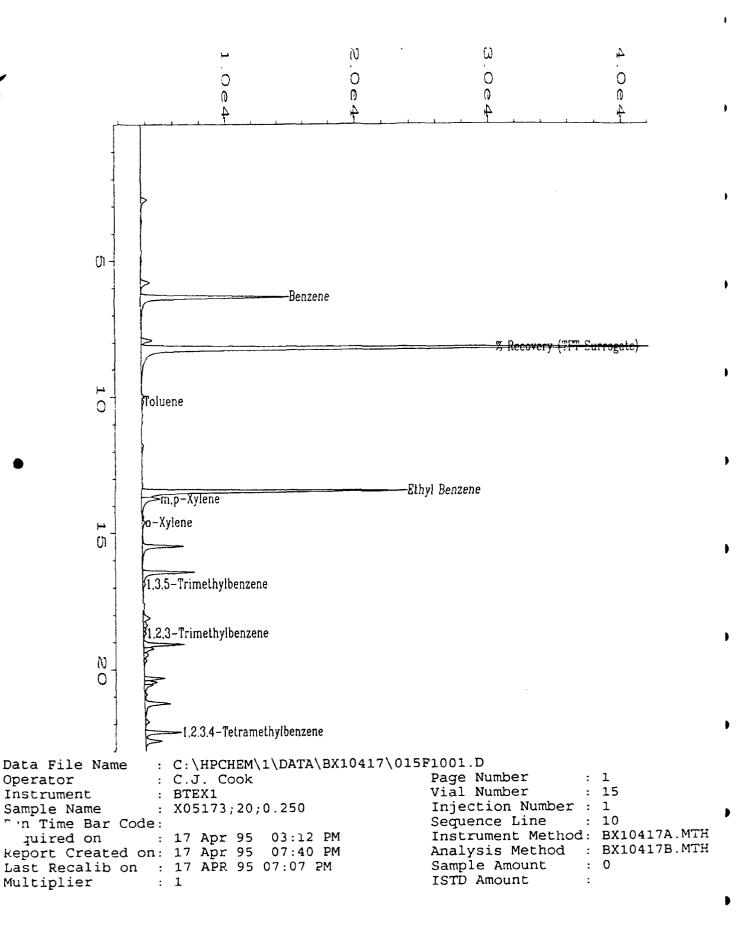
Time Reference Peak Expected RT Actual RT Difference 2 8.275 8.214 -0.061

Not all calibrated peaks were found

Holding Time

up

not could



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August 9, 1995

MR TODD WIEDEMEIER
PARSONS ENGINEERING SCIENCE INC
1700 BROADWAY SUITE 900
DENVER CO 80290

Data Report : 95-2330 Client Project : MacDILL/

722450.21020

Dear Mr. Wiedemeier:

Enclosed are the analytical results for the samples shown in the Sample Log Sheet. The enclosed data have been reviewed for quality assurance. If you have any questions concerning the reported information, please contact Patty McClellan, Program Manager, or me.

Please Note: Samples marked for return on the Sample Log Sheet are considered hazardous, unsuitable for municipal disposal or were placed on hold at your request. Samples considered hazardous or unsuitable for municipal disposal will be returned to you immediately. Samples placed on hold will be returned and samples not considered hazardous will be disposed of one (1) month from the date of this letter.

The invoice for this work will be mailed to your Accounts Payable department shortly.

Thank you for using the services of Evergreen Analytical.

Jack Barney

President

Sincerely



CASE NARRATIVE

Evergreen Analytical Laboratory (EAL) Project: 95-2330

Parsons Engineering Science, Inc. (PES) Project: MacDill AFB

722450.21020

Sample Receipt

On July 22, 1995, ten groundwater samples were received at EAL for analysis under Subcontract 722450.SC02. Refer to the EAL Check-in Record for specific information regarding the condition of samples upon receipt. Refer to the EAL Sample Log Sheet for specific log-in information and cross-reference of EAL and PES identifications.

Data Package

All data are reported from one EAL project. Each EAL project represents a group of samples received on a given day.

An invoice will be generated that references this project number.

All required matrix spike/matrix spike (MS/MSD) samples were analyzed. Laboratory Control Samples (LCS) and Method Blanks were analyzed when required and also are included in the data package.

BTEX, Trimethylbenzenes, Tetramethylbenzene, Chlorobenzene, Method Sw8020

All samples were analyzed for BTEX within holding time.

Sample 24PZ-1S was analyzed at a dilution factor of 10 due to the presence of target compounds beyond the linear range of the calibartion curve. The reporting limits were increased accordingly.

Matrix spike/matrix spike duplicate analysis was performed on sample 24PZ-3 with acceptable recoveries.

The spike recovery for 1,3,5-TMB was above the EAL acceptance criteria. All associated samples were non-detect for this compound.

There are no other quality control anomalies to report.

Page Two Case Narrative Parsons Engineering Science, Inc.

Methane, RSKSOP175

Samples $\overline{24PZ-3S}$, 24PZ-5S and 24PZ-1S were analyzed at dilutions ranging from DF = 10 to DF = 50 due to contamination in the sample. The reporting limits have been adjusted accordingly.

There are no quality assurance anomalies to report.

Anions, Method EPA300.0

Sample 24PZ-3D was analyzed at dilutions for sulfate, chloride and nitrite analyses do to concentrations of target analytes in the sample. The reporting limits were adjusted accordingly.

Samples 24PZ-3MS1 and 24PZ-3MS2 were analyzed upon receipt as discrete samples rather than as the MS/MSD for sample 24PZ-3S. The samples had holding times which would have expired if the analysts had not analyzed them over the weekend, and the spike criteria for this sample was not apparent to them. Please see sample 24PZ-2S for MS/MSD results.

There are no other quality control anomalies to report.

Disk Deliverables

The disk deliverables are included with the hard copy data package. Quality control samples are not included on the disk. Please note that blank spaces in the laboratory detection limit and/or practical quantitation limit (PQL) column indicate that there is not detection limit or PQL for that analyte.

A hard copy of the spreadsheet is included.

Patricia A. McClellan, Program Manager

Evergreen Analytical Sample Log Sheet	Project # <u>95-2330</u>			
Date(s) Sampled: 7/21/95 COC	Date Due: 7/31/95-BTEX 8/7/95 -OTHERS			
Date Received: 7/22/95 0900 Client Project I.D. MacDILL/722450.21020	7/28-BTEX, METHANE			
Client: PARSONS ENGINEERING SCIENCE	Shipping Charges N/A			
Address: 1700 BROADWAY SUITE 900	E.A. Cooler # 434			
DENVER, CO 80290	Airbill # FEDEX 4389548376			
Contact: JOHN HICKS/TODD WIEDEMEIER	Custody Seal Intact? Y			
Client P.O. 722450.SC02 Phone #831-8100	Cooler X Bottles Y COC Present Y Sample Tags Present? Y Sample Tags Listed? Y			
Special Invoicing/Billing Special Instructions *INCLUDES TMB's, Temb ANIONS ON X09250D-G (24PZ-E01).	Sample(s) Sealed? Y , AND CHLOROBENZENE. HOLD METHANE &			
Lab Client ID # ID# Analysis	Mtx Btl Loc			
X09242A-C 24PZ-3S BTEX 602*	W 40V 2			
X09242MSA-C 24PZ-3MS1 "	11 11 11			
X09242MSDA-C 24PZ-3MS2 "	(1 21 11			
X09245A-C 24PZ-3D "	19 19 19			
X09246A-C 24PZ-5S "	1F 19 19			
X09247A-C 24PZ-4S "	16 to 10			
X09248A-C 24PZ-2S "	10 67 10			
X09249A-C 24PZ-2R "	11 99 19			
X09250A-C 24PZ-E01 "	88 99			
X09451A-C 24PZ-1S "	16 11 16			
X09252A/B TRIP BLANK "	19 69 66			
X09242D-F 24PZ-3S METHANE	W 40V 2			
X09242MSD-F 24PZ-3MS1 "	11 11 11			
X09242MSDD-F_24PZ-3MS2	H H H			
X09245D-F 24PZ-3D "	<i>i</i> 11 11			
X09246D-F 24PZ-5S **	11 11 11			
R=Sample to be returned				
Route GC/MS _ GC 3 Metals _ To				
SxRec C QA/QC C S Page 1 of 2 Page(s)	Custodian/Date: M/M 7/25/			

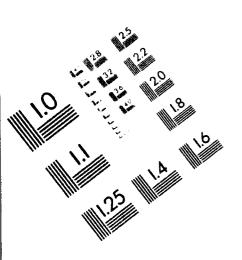
Lab ID #	Client ID#	Analysis	Mtx	Bt1	Loc
X09247D-F	24PZ-4S	METHANE	91	11	H
9248D-F	24PZ-2S	H	11	11	ti
X09249D-F	24PZ-2R	19	H	10	17
X09451D-F	24PZ-1S	19	11		tt
X09250D-F	24PZ-E01	HOLD	11		11
X09242G	24PZ-3S	ANIONS-Cl, NO2, NO3, SO4	W	125P	B 5
X09242MSG	24PZ-3MS1	89	11	11	10
X09242MSDG	24PZ-3MS2	ii .	14	11	11
X09245G	24PZ-3D	19	91	10	31
X09246G	24PZ-5S	39	11	11	11
X09247G	24PZ-4S	1)	:1	11	11
X09248G	24PZ-2S	11	99	11	11
X09249G	24PZ-2R	11	11	••	tı
X09451G	24PZ-1S	!!	**	11	**
X09250G	24PZ-E01	HOLD	71	11	11

Page 2 of 2 Pages
Project # 95-2330

R=Sample to be returned

◉

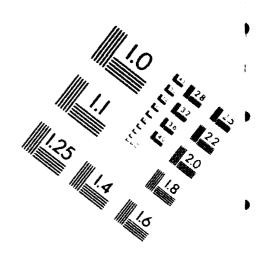
TREATABILITY STUDY IN SUPPORT OF INTRINSIC REMEDIATION FOR SITE OT 24 AT MACDILL AIR FORCE BASE FLORIDA VOLUME 2(U) PARSONS ENGINEERING SCIENCE INC DENVER CO JAN 97 KC-AFCEE 18/ 10 RD-R286 946 NL UNCLASSIFIED 1 END FILMED DTIC



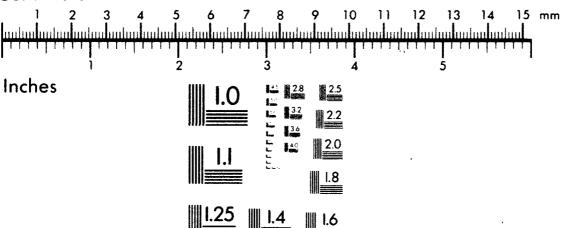


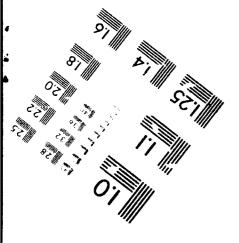
Association for Information and Image Management

1100 Wayne Avenue Suite 1100 Silver Spring, Maryland 20910 301/587-8202

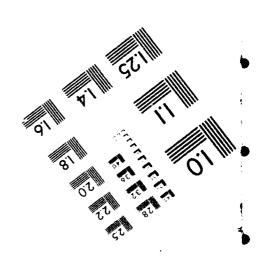


Centimeter





MANUFACTURED TO AIIM STANDARDS
BY APPLIED IMAGE, INC.



CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES REQUEST

Page L of

Page L of	CLIENT CONTACT (print) John HILKS	722450,21020	, 0 d	TURNAROUND REQUIRED' 🔲 STD (2 wks) 🗀 STD UST (1 day	F Other (Specify) 30 cles	expedited turnaround subject to additional fee	EAL use only Do not write	in shaded area	EAL.		TAI Cample Mo											Location	Container Size		
	CLIENT CONT	PROJECT I.D.	EAL. QUOTE #	TURNAROUN		expedited tur	REQUESTED	040	AN CON SWARM	Metals Metals Metals Metals	circle & list Dissolved I Circle & list	/ _	1 3	1 3	1 3	1 3	- 3	1 3	1 3		1 3			X E602	
Intical Inc.	4036 Youngfield St.	Wheat Ridge, Colorado 80033 (303) 425-6021	FAX (303) 425-6854	500) 845-7400 FAX RESULTS (P) / N			ANALYSIS REQ	(دادداھ)	ircle)/MTBE Sease 413.1 (Gasoline)	Oil & O	0S08 X3T8 TRPH 418.1 TVPH 8019 TPPH 8019	2	3	3	3	5	8	w	3	3	3			for BTEX	1700
Evergreen Analytical Inc.	4036 Yo	Wheat Ridge, C (303) 425-6021		8208 FAXRI					ircle) 508 (circle) 608/508 (ci 515 (circle)	9080\ 9080\ 9080\	Pesticides													1 sometyr	
Ú.			•	-831-			RIX	sisten	N-deHVzeq (elonio) S.AS	AN8/	Pildge AOV SIUdge AOV BILD AOV BILDGE													01 arly	to
•	Science	Suite 90h	06208 diz	FAX # 303	(1	Darout MATRIX	(puno.			Ho. of Cont Water-Drind (circle) Soil / Solid	7	35 7 1	5 7 P	20 7 /	30 7 1	5 7 1	1230 7 /	1235 7 1	1 L csai	1 6 0581			103-24hz	comple
	Fra weet us	Brokown &	ZIP	8100	111	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	villo / FEDE Greo	10 HBH	NI TNI	ation:	DATE SAMPI ED TII	<u> </u>	7-21-95 0935	7-21-95 0940	7-21-95 1400	2-21 95 1030	5-21 45 1115	71 56-124	7-21-95 123	7-21-95 10	7-21-95 13:			SAMPLE	(1) (1)
ţ	COMPANY PARSONS FrAINCEINE SCIENCE	ADDRESS 1785 Br		40	Jampler Name/		(print) Colert Solvel	Evergreen Analytical Cooler No	Please PRIN.	all information:	CLIENT SAMPLE IDENTIFICATION	2472-35	2482-3MS1	24Pz -3M52	24Pz -3D	24PZ -55	24 62 -45	2472-25	24PZ-2R	2472-601	2482-15	HT	:aa	Instructions: for	2.8, 0:014

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Lab ID #	Client ID#	Analysis	Mtx	Btl	Loc	
X09247D-F	24PZ-4S	METHANE	Ħ	11	11	
9248D-F	24PZ-2S	11	н	91	**	···
X09249D-F	24PZ-2R	ii .	11	11	**	
X09451D-F	24PZ-1S	н	11	91	H	
X09250D-F	24PZ-E01	HOLD	Ħ	**	н	
X09242G	24PZ-3S	ANIONS-Cl, NO2, NO3, SO4	W	125P	B 5	
X09242MSG	24PZ-3MS1	**	11	11	н	
X09242MSD	G 24PZ-3MS2	н	••	11	**	
X09245G	24PZ-3D	Ħ	**	**	**	
X09246G	24PZ-5S	н	**	**	,,	
X09247G	24PZ-4S	19	99	11	и	
X09248G	24PZ-25	11	**	99	91	
X09249G	24PZ-2R	11	11	71	H	
X09451G	24PZ-1S	н	11	11	11	
X09250G	24PZ-E01	HOLD	11	11	11	

Page 2 of 2 Pages
Project # 95-2330

R=Sample to be returned

Evergreen Analytical Sample Receipt			_
Date & Time Rec'd: 7/02/95 0900 Shipped			19548
client: <u>PARSONS</u> ES	(Alreitt	f if application in the state of the state o	able)
Client Project ID(s): 722450 21020)		
EAL Project #(s):95-2330 EAL	Cooler(s): (Y)	Я
Cooler# 434			_
Ice packs (Y N Y N Y N	У И	Y N	
Temperature &			-
1. Custody seal(s) present: Seals on cooler intact Seals on bottle intact	¥	N	N/A
2. Chain of Custody present:			
3. Samples Radioactive: (Comment on COC if > 0.5 mar/s)			
4. Containers broken or leaking: (Comment on COCTY)			
5. Containers labeled:			
6. COC agrees w/ bottles received: (Cumment de COC d'A)		<u>/</u>	
7. COC agrees W/ labels: (Comment on COC UN)		<u> </u>	
8. Headspace in vials-waters only: (Comment on COC 4 Yr		manus companyance	
9. VOA samples preserved:		Married Street, Street	
10. pH measured on metals, cyanide or phenolics List discrepancies *Non-EAL provided containers only, water sample			
ll. Metal samples present: Total , Dissolved , TCLP			
D or PD to be filtered:	***************************************	***************************************	
T,TR,D,PD to be Preserved:		*	
Specify parameters DU NO3			
3. Multi-phase sample(s) present:			
4. COC signed w/ date/time:	1		
comments: #6. BoHles labeled 24P2-35MSI + 35MS	52. C.O.C	reads	
24PZ-3ms1 & 3msz. We received battles for 24PZ-EUI for anion a mo	ethane an	ulver - ne	
en C.O.C.			
Additional comments on back)) -1-	7/90	
rustodian Signature/Date:	2 7/2	- 41/3	

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Method 602 Data Report Method Blank Report

Method Blank Number

: MB1072795

Client Project No.

: MacDill/722450.2102

Date Prepared

: 7/27/95

Lab Project No.

: 95-2330

Date Analyzed

: 7/27/95

Dilution Factor

: 1.00

Method Matrix

: 602/8020 : Water

Lab File No.

: BX1072712

		Sample		
Compound Name	Cas Number	Concentration	RL	
		uç′L	ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	υ	0.4	h
Ethyl Benzene	100-41-4	υ	0.4	•
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	þ
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5	Þ
Surrogate Recovery (α,α,α-Trifluc	protoluene):	92%	70%-130% (QC limits	- ;

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

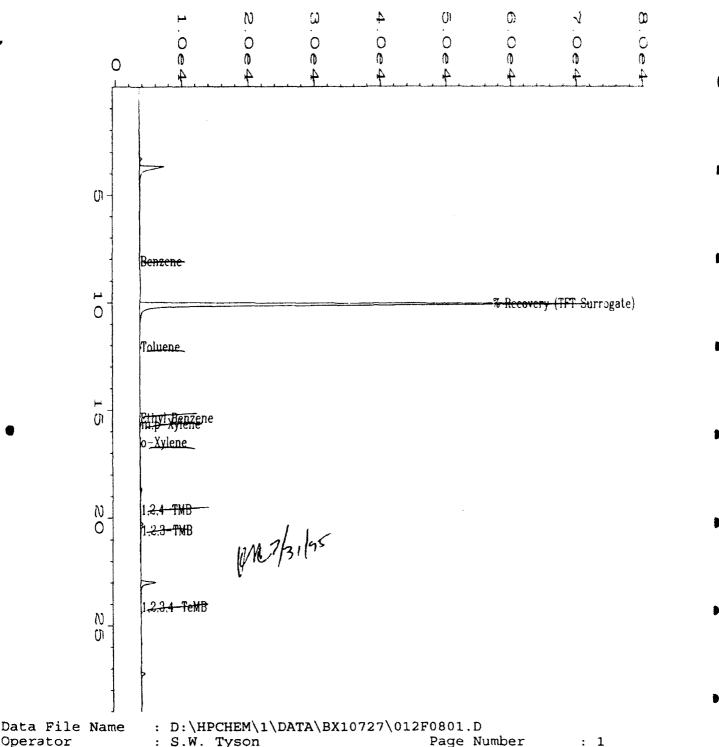
E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.



Page Number Operator : S.W. Tyson Vial Number Instrument : BTEX1 : MB1072795 Injection Number : 1 Sample Name Run Time Bar Code: Sequence Line : 8 Instrument Method: BX10727.MTH cquired on : 27 Jul 95 04:14 PM Analysis Method : BX10727.MTH Report Created on: 01 Aug 95 10:10 AM Sample Amount Last Recalib on : 27 JUL 95 02:46 PM ISTD Amount Multiplier

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Method Blank Number

: MB1072895

Client Project No.

: MacDill/722450.2102

Date Prepared

: 7/28/95

Lab Project No.

: 95-2330

Date Analyzed : 7/28/95 Dilution Factor

: 1.00

Method Matrix

: 602/8020 : Water

Lab File No.

: BX1072810

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	υ	0.4	
Chlorobenzene	108-90-7	U	0.4	,
Ethyl Benzene	100-41-4	U	0.4	•
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4	,
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5	•

Surrogate Recovery (α, α, α -Trifluorotoluene):

96%

70%-130% (QC limit.

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

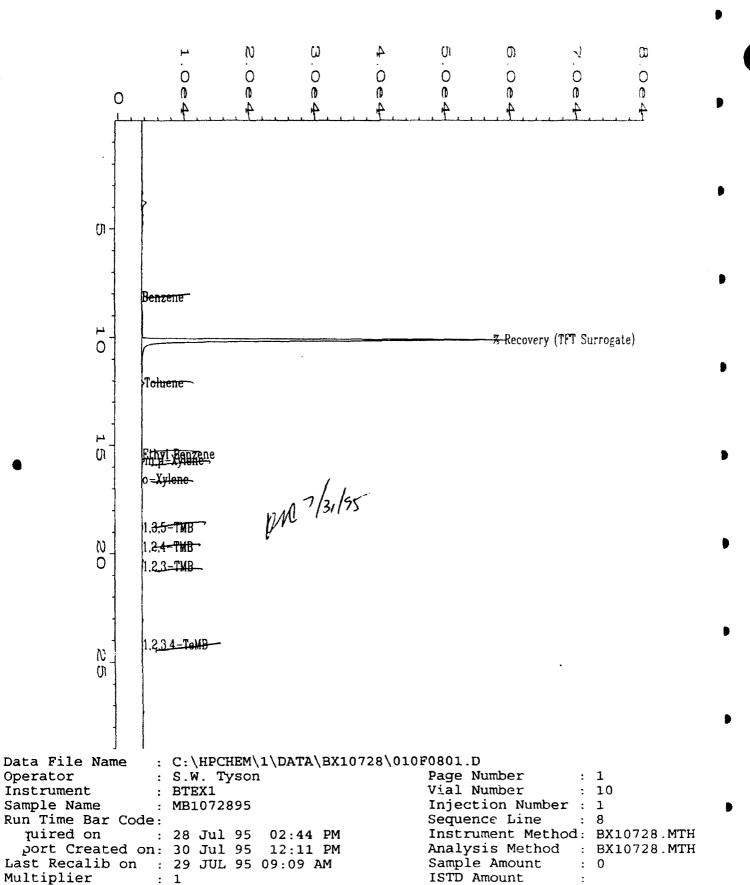
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

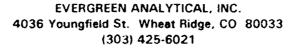
RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst



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Method 602 Data Report Method Blank Report

Method Blank Number

: MB1072995

Client Project No.

: MacDill/722450.2102

Date Prepared

: 7/29/95

Lab Project No.

: 95-2330

Date Analyzed

: 7/29/95

Dilution Factor

79%

: 1.00

Method

: 602/8020

Matrix

: Water

Lab File No.

: BX1072903

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	
Ethyl Benzene	100-41-4	U	0.4	•
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	υ	0.4	•
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5	•

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

Surrogate Recovery (\alpha, \alpha, \alpha - Trifluorotoluene):

QUALIFIERS:

E = Extrapolated value.

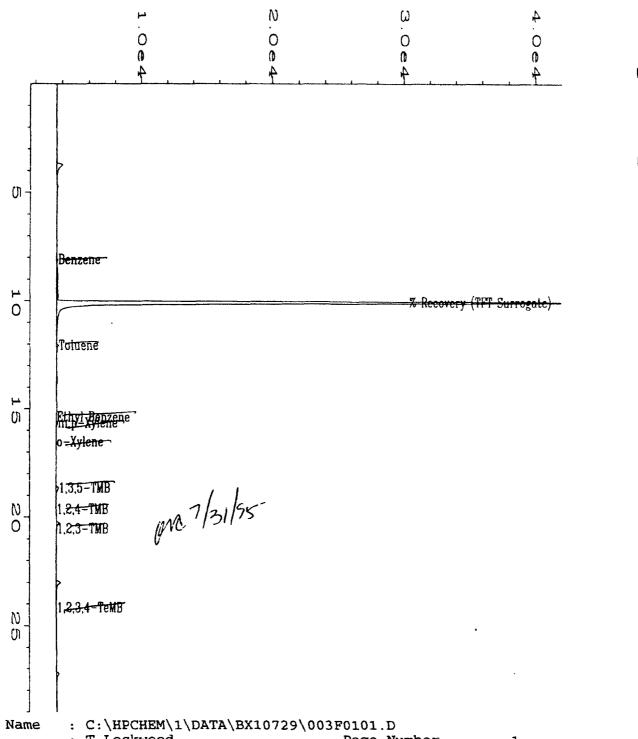
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

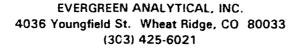
NA = Not Available/Not Applicable.

70%-130% (QC limits.



Data File Name Operator : T.Lockwood Page Number : BTEX1 Instrument Vial Number : 3 : MB1072995 Sample Name Injection Number: 1 Run Time Bar Code: Sequence Line : 1 uired on : 29 Jul 95 11:08 AM Instrument Method: BX10728.MTH port Created on: 30 Jul 95 12:55 PM Analysis Method : BX10728.MTH Last Recalib on : 29 JUL 95 09:09 AM Sample Amount : 0 Multiplier

ISTD Amount



Method 602 Data Report

Client Sample Number : 24PZ-3S Client Project No. : MacDill/722450.2102 Lab Sample Number : X09242 Lab Project No. : 95-2330 **Date Sampled** : 7/21/95 **Dilution Factor** : 1.00 **Date Received** : 7/22/95 Method : 602 **Date Prepared** : 7/27/95 Matrix : Water **Date Analyzed** : 7/27/95 Lab File No. : BX1072718 Method Blank No. : MB1072795

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	,
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	υ	0.4	,
Ethyl Benzene	100-41-4	U	0.4	,
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	υ	0.4	•
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5	•

89%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Recovery (α,α,α-Trifluorotoluene):

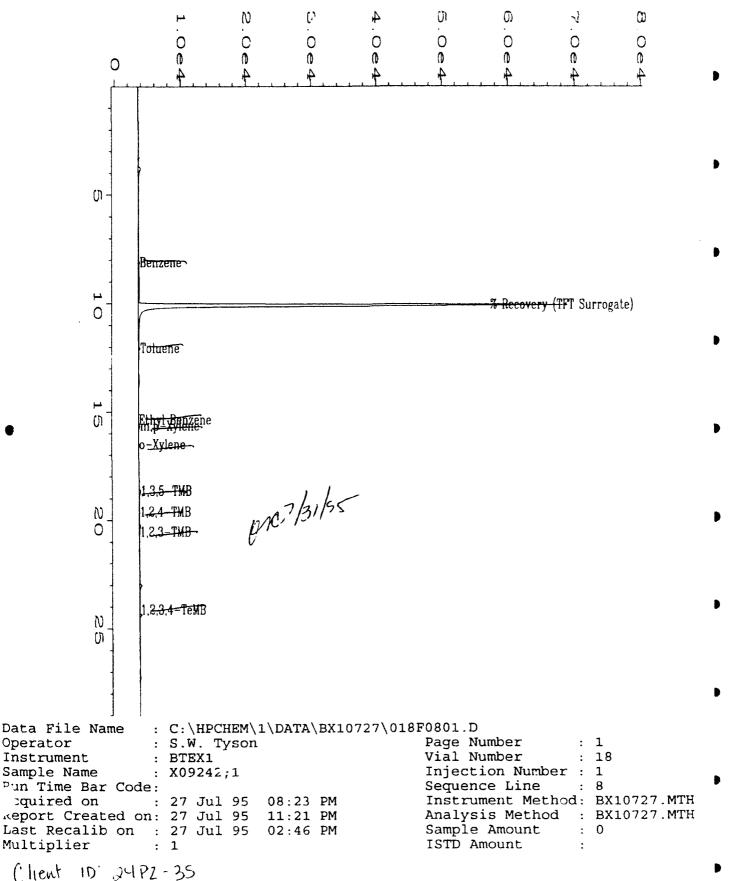
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved

70%-130% (QC limits



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Method 602 Data Report

: MacDill/722450.2102(Client Project No. Client Sample Number : 24PZ-3D Lab Project No. : 95-2330 Lab Sample Number : X09245 Dilution Factor : 1.00 **Date Sampled** : 7/21/95 **Date Received** Method : 7/22/95 : 602 : 7/27/95 Matrix : Water **Date Prepared** : 7/28/95 Lab File No. : BX1072726 **Date Analyzed** Method Blank No. : MB1072795

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	U	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	υ	0.4
Total Xylenes	108-38-3, 106-42-3	υ	0.4
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	υ	0.4
1,2,4-Trimethylbenzene	95-63-6	υ	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	υ	0.5
Surrogate Recovery (a,a,a-Trifluc	rotoluene):	81%	70%-130% (QC limits.

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

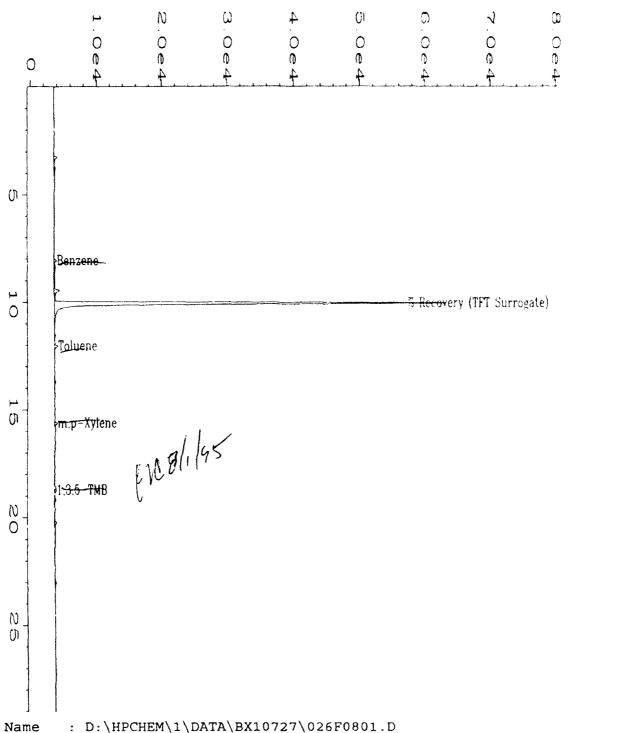
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

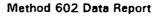
NA = Not Available/Not Applicable.

Approved



Data File Name Operator : S.W. Tyson Page Number Instrument Vial Number : 26 : BTEX1 Sample Name : X09245;1 Injection Number : 1 Run Time Bar Code: Sequence Line : 8 : 28 Jul 95 Instrument Method: BX10727.MTH .cquired on 01:55 AM 11:37 AM Report Created on: 01 Aug 95 Analysis Method : BX10727.MTH Last Recalib on : 27 JUL 95 02:46 PM Sample Amount Multiplier ISTD Amount

Client ID: 24PZ-3D



Client Sample Number	: 24PZ-5S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09246	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/27/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072727
		Method Blank No.	: MB1072795

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L	,
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	,
Ethyl Benzene	100-41-4	υ	0.4	
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4)
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5)
Surrogate Recovery (α,α,α-Trifluo	protoluene):	75%	70%-130% (QC lir	nits:

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

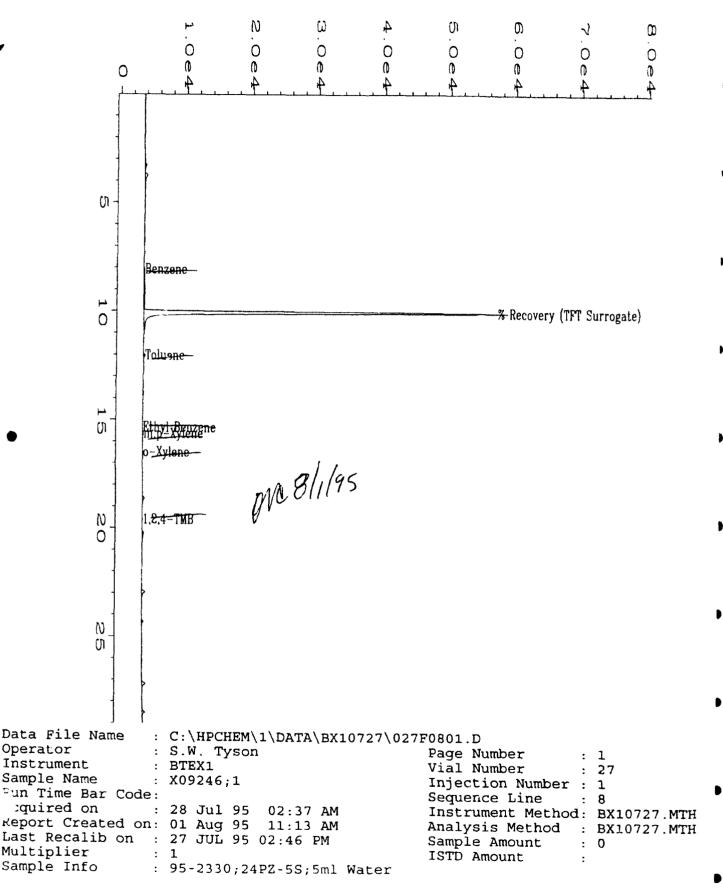
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



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Method 602 Data Report

Client Sample Number	: 24PZ-4S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09247	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/27/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1C72728
		Method Blank No.	: MB1072795

Compound Name	ound Name Cas Number		RL ug/L	_
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	U	0.4	
Ethyl Benzene	100-41-4	U	0.4	•
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4	•
1,2,4-Trimethylbenzene	95-63-6	U	0.4	•
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5	•
Surrogate Recovery (a,a,a-Trifluo	protoluene):	73%	70%-130% (QC	limits

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

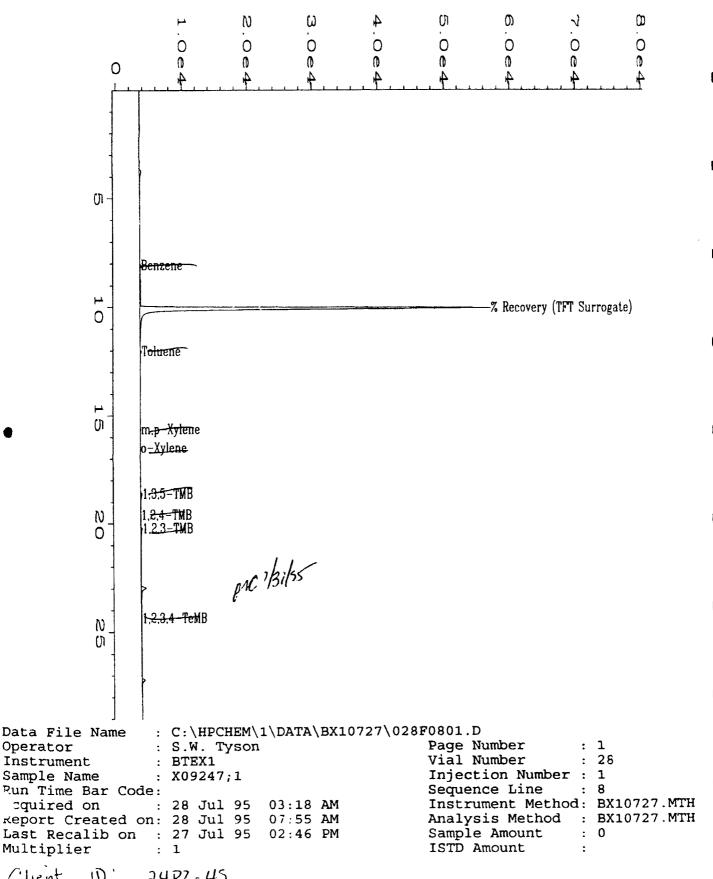
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

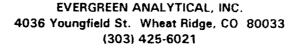
Analyst

Approved



Client ID: 24PZ-45

Operator



Method 602 Data Report

Client Sample Number : 24PZ-2S Client Project No. : MacDill/722450.2102 Lab Sample Number : X09248 Lab Project No. : 95-2330 **Date Sampled** Dilution Factor : 7/21/95 : 1.00 **Date Received** Method : 7/22/95 : 602 **Date Prepared** : 7/29/95 Matrix : Water Date Analyzed : 7/29/95 Lab File No. : BX1072909 Method Blank No. : MB1072995

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	,
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	υ	0.4	
Chlorobenzene	108-90-7	U	0.4	,
Ethyl Benzene	100-41-4	υ	0.4	
Total Xylenes	108-38-3, 106-42-3	υ	0.4	
(m, p & o;	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	•
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2.3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5	,
Surrogate Recovery (α,α,α-Trifluc	protoluene):	82%	70%-130% (QC limit	s

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

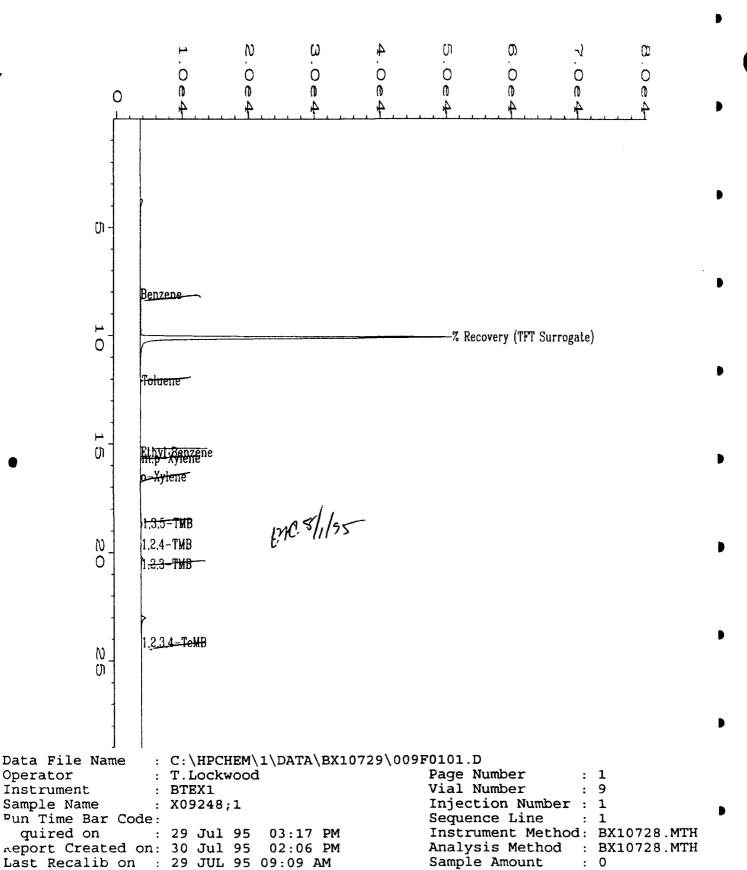
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved



ISTD Amount

Client 10: 24PZ-25

Multiplier

Method 602 Data Report

Client Sample Number	: 24PZ-2R	Client Project No.	: MacDill/722450.21020
Lab Sample Number	: X09249	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072811
		Method Blank No.	: MB1072895

	Sample			
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	
Benzene	71-43-2	U	0.4	
Toluene	108-88-3	U	0.4	
Chlorobenzene	108-90-7	· U	0.4	
Ethyl Benzene	100-41-4	υ	0.4	•
Total Xylenes	108-38-3, 106-42-3	U	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	•
1,2,4-Trimethylbenzene	95-63-6	υ	0.4	
1,2,3-Trimethylbenzene	526-73-8	υ	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	υ	0.5	•

94%

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

Surrogate Pacovery (a,a,a-Trifluorotoluene):

B = Compound also found in the blank.

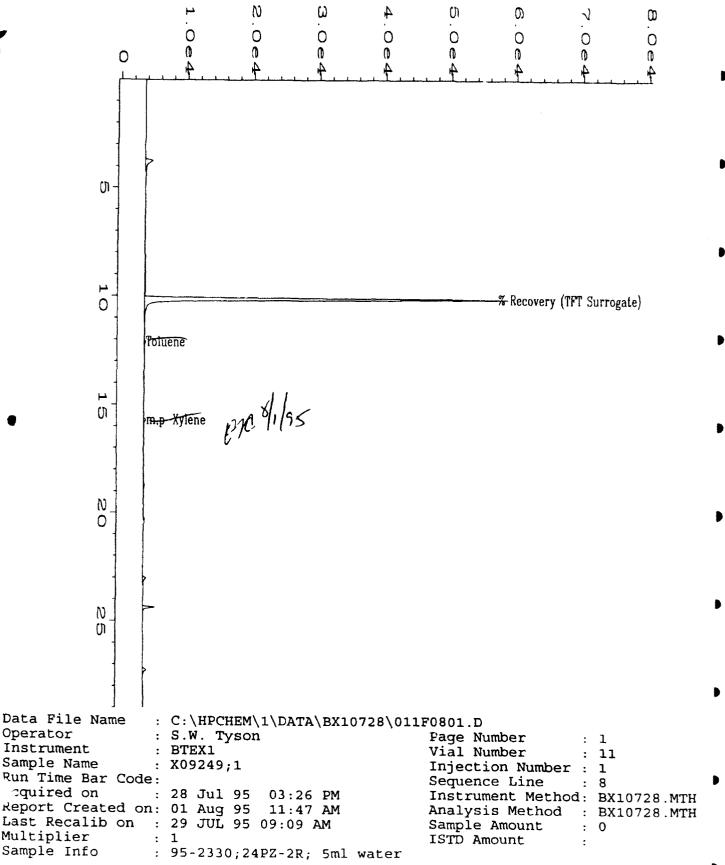
RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

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70%-130% (QC limits)



Operator

Method 602 Data Report

: MacDill/722450.2102(Client Sample Number : 24PZ-E01 Client Project No. Lab Sample Number : 95-2330 : X09250 Lab Project No. **Date Sampled** : 7/21/95 **Dilution Factor** : 1.00 **Date Received** 7/22/95 Method : 602 **Date Prepared** : 7/28/95 Matrix : Water **Date Analyzed** : 7/28/95 Lab File No. : BX1072812 Method Blank No. : MB1072895

Compound Name	Cas Number	Sample Concentration ug/L	RL ug/L
Benzene	71-43-2	U	0.4
Toluene	108-88-3	υ	0.4
Chlorobenzene	108-90-7	U	0.4
Ethyl Benzene	100-41-4	υ	0.4
Total Xylenes	108-38-3, 106-42-3	υ	0.4
(m, p & o) 1,3,5-Trimethylbenzene	and 95-47-6 108-67-8	U	0.4
1,2,4-Trimethylbenzene	95-63-6	U	0.4
1,2,3-Trimethylbenzene	526-73-8	U	0.4
1,2,3,4-Tetramethylbenzene	488-23-3	U	0.5
Surrogate Recovery (α,α,α-Trifluc	rotoluene):	98%	70%-130% (QC limits

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

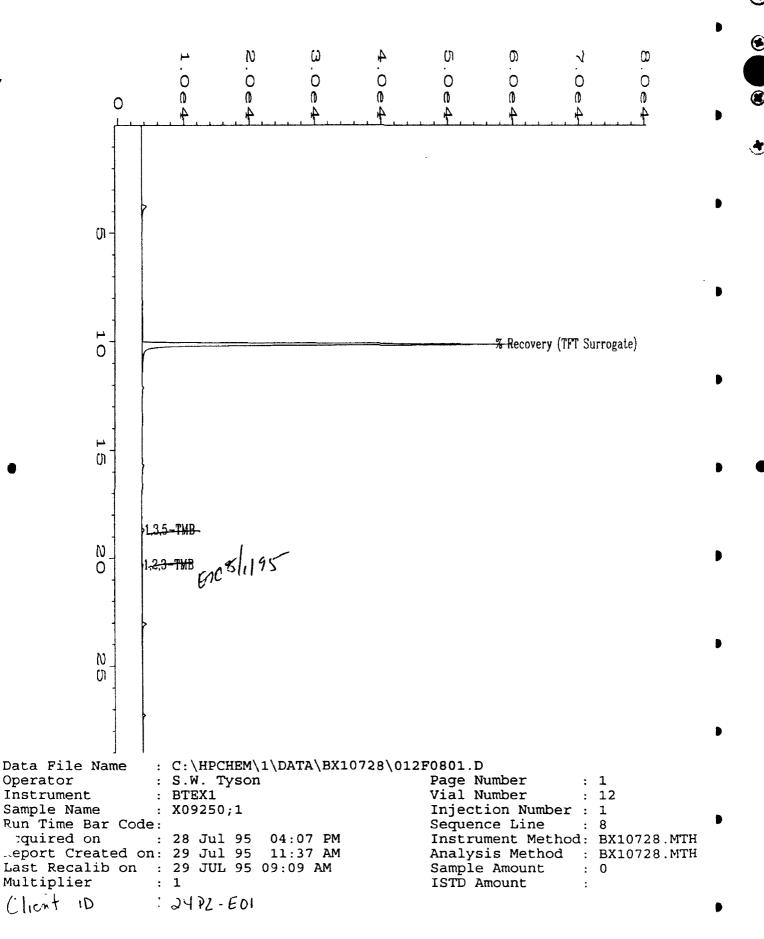
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

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Method 602 Data Report

Client Sample Number	: 24PZ-1S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09251	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072813
-		Method Blank No.	: MB1072895

Compound Name	Cas Number	Samp Concentra ug/L		RL ug/L	
Benzene	71-43-2	* *		**	_ ,
Toluene	108-88-3		U	0.4	
Chlorobenzene	108-90-7	0.6		0.4	
Ethyl Benzene	100-41-4		Ü	0.4	•
Total Xylenes	108-38-3, 106-42-3		U	0.4	
(m, p & o)	and 95-47-6				
1,3,5-Trimethylbenzene	108-67-8		U	0.4	Þ
1,2,4-Trimethylbenzene	95-63-6	0.6		0.4	
1,2,3-Trimethylbenzene	526-73-8		U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3		U	0.5	•
Surrogate Recovery (a,a,a-Trifluc	protoluene):	94%		70%-130% (QC limit	

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

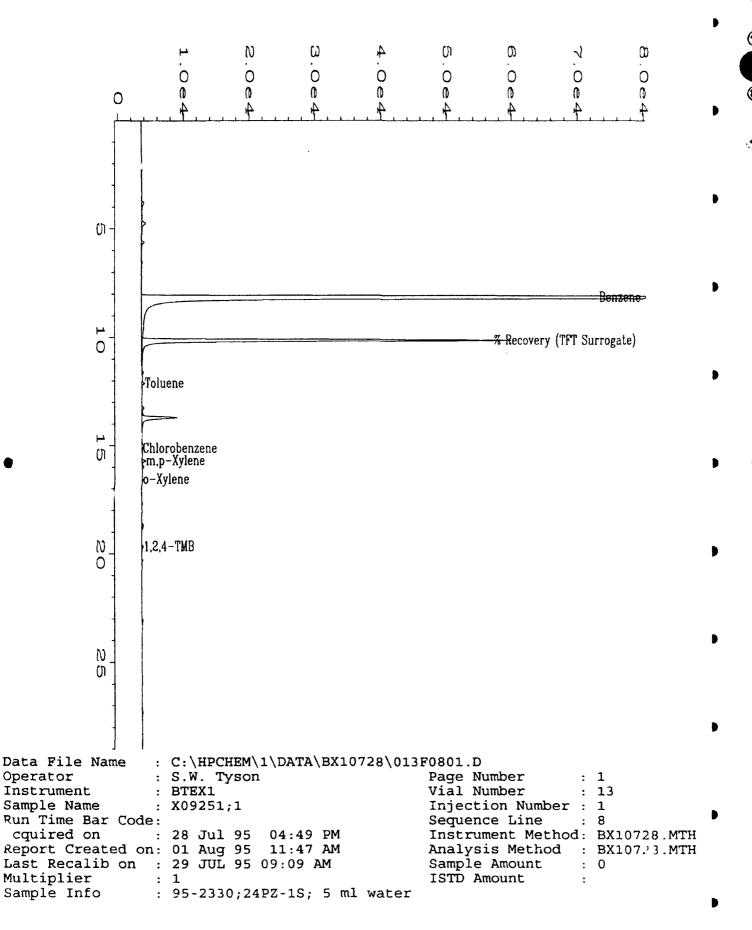
RL = Reporting Limit.

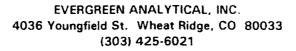
NA = Not Available/Not Applicable.

Analyst

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^{** =} See BX1072905 for noted value, df = 10, 07/29/95.





Method 602 Data Report

Client Sample Number	: 24PZ-1S	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09251	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 10.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/29/95	Matrix	: Water
Date Analyzed	: 7/29/95	Lab File No.	: BX1072905
		Method Blank No.	: MB1072995

		Sample		
Compound Name	Cas Number	Concentration	RL	
		ug/L	ug/L	•
Benzene	71-43-2	210	4.0	
Toluene	108-88-3	**	••	
Chlorobenzene	108-90-7	**	**	
Ethyl Benzene	100-41-4	**	**	
Total Xylenes	108-38-3, 106-42-3	••	••	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	**	••	Þ
1,2,4-Trimethylbenzene	95-63-6	**	••	
1,2,3-Trimethylbenzene	526-73-8	**	••	
1,2,3,4-Tetramethylbenzene	488-23-3	**	••	•
Surrogate Recovery (α,α,α-Trifluc	protoluene):	92%	70%-130% (QC limits)	

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

** = See BX1072813 for noted value, df = 1, 07/28/95.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

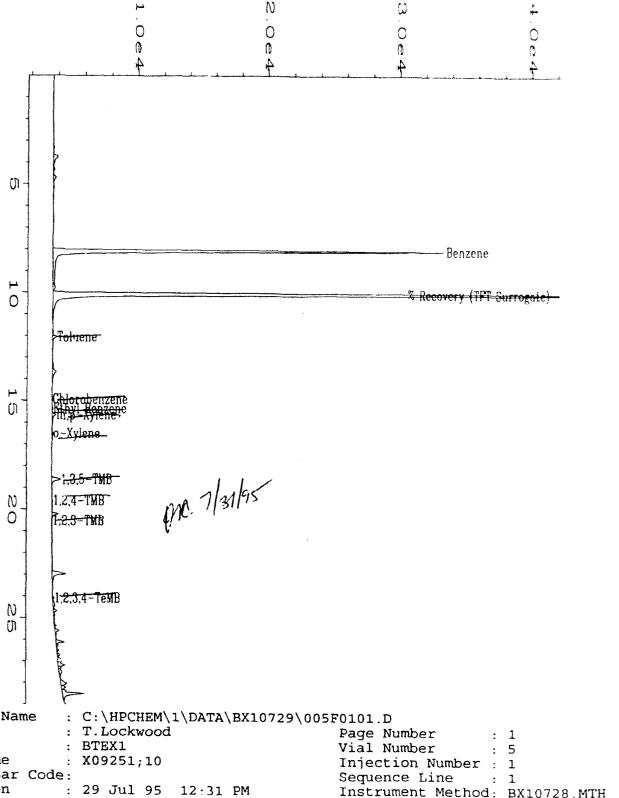
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

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Data File Name Operator Instrument Sample Name Run Time Bar Code: cquired on Instrument Method: BX10728.MTH Report Created on: 30 Jul 95 02:04 PM Analysis Method : BX10728.MTH Last Recalib on : 29 JUL 95 09:09 AM Sample Amount Multiplier ISTD Amount Chent : 24PZ-15 ID

Method 602 Data Report

Client Sample Number	: Trip Blank	Client Project No.	: MacDill/722450.2102
Lab Sample Number	: X09252	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: 602
Date Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: BX1072814
		Method Blank No.	: MB1072895

		Sample		
Compound Name	Cas Number	Concentration	RL	
	_	ug/L	ug/L	
Benzene	71-43-2	U	0.4	_ ,
Toluene	108-88-3	υ	0.4	
Chlorobenzene	108-90-7	υ	0.4	
Ethyl Benzene	100-41-4	U	0.4	•
Total Xylenes	108-38-3, 106-42-3	υ	0.4	
(m, p & o)	and 95-47-6			
1,3,5-Trimethylbenzene	108-67-8	U	0.4	•
1,2,4-Trimethylbenzene	95-63-6	U	0.4	
1,2,3-Trimethylbenzene	526-73-8	U	0.4	
1,2,3,4-Tetramethylbenzene	488-23-3	υ	0.5	•
Surrogate Recovery (α,α,α-Trifluc	rotoluene):	99%	70%-130% (QC limit	s

Note: Total Xylenes consist of three isomers, two of which co-elute.

The Xylene RL is for a single peak.

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

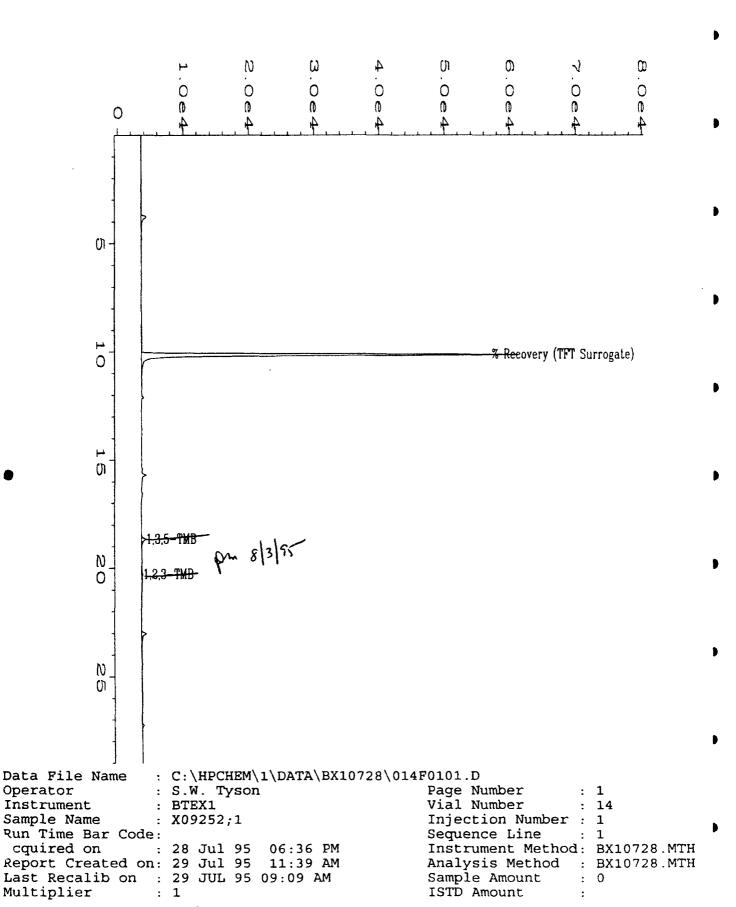
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

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Client ID : Trip Blank

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

EPA 602/8020 Matrix Spike/Matrix Spike Duplicate Data Report

Client Project No. : MacDill/ Client Sample No. : 24PZ-3S 722450.21020 Lab Sample No. : X09242 Lab Project No. : 95-2330 Date Sampled : 7/21/95 EPA Method No. : 602 **Date Received** : 7/22/95 Matrix : Water **Date Prepared** : 7/27/95 Lab File Number(s) : BX1072721,22 Method Blank Date Analyzed 7/27/95 : MB1072795

Dilution Factor

Compound	Spike Added	Sample Concentration	Concentration (ug/L)			
	(ug/L)	(ug/L)	MS	MSD	Comments	
Benzene	20.0	0.0	14.0	15.1		
Toluene	20.0	0.0	13.9	15.0		
Chlorobenzene	20.0	0.0	13.7	14.8		
Ethylbenzene	20.0	0.0	14.1	15.2		
m,p-Xylene	40.0	0.0	28.6	30.9		
o-Xylene	20.0	0.0	13.9	15.0		
1,3,5-TMB	20.0	0.0	13.8	14.9		
1,2,4-TMB	20.0	0.0	13.2	14.4		
1,2,3-TMB	20.0	0.0	13.6	14.7		
1,2,3,4-TeMB	20.0	0.0	14.2	15.2		
Surrogate	100.0	89%	72%	75%	% RECOVERY	

		<u>- </u>	<u> </u>		
Compound	MS %	MSD %			QC# Limits
	RECOVERY	RECOVERY	RPD	RPD	%REC
Benzene	70.0	75.5	7.6	25	50 - 150
Toluene	69.5	75.0	7.6	25	50 - 148
Chlorobenzene	68.5	74.0	7.7	25	55 - 135
Ethylbenzene	70.5	76.0	7.5	25	50 - 150
m,p-Xylene	71.5	77.3	7.7	25	50 - 150
o-Xylene	69.5	75.0	7.6	25	50 - 150
1,3,5-TMB	69.0	74.5	7.7	25	50 - 150
1,2,4-TMB	66.0	72.0	8.7	25	50 - 150
1,2,3-TMB	68.0	73.5	7.8	25	50 - 150
1,2,3,4-TeMB	71.0	76.0	6.8	25	50 - 150
Surrogate	72.0	75.0	NA	NA	70 - 130

#= Values taken from EPA methods 602/8020.

*	_	Values	outside	of Of	Climite
		v aiues	DUIDING	121 121	. HHIIIIS.

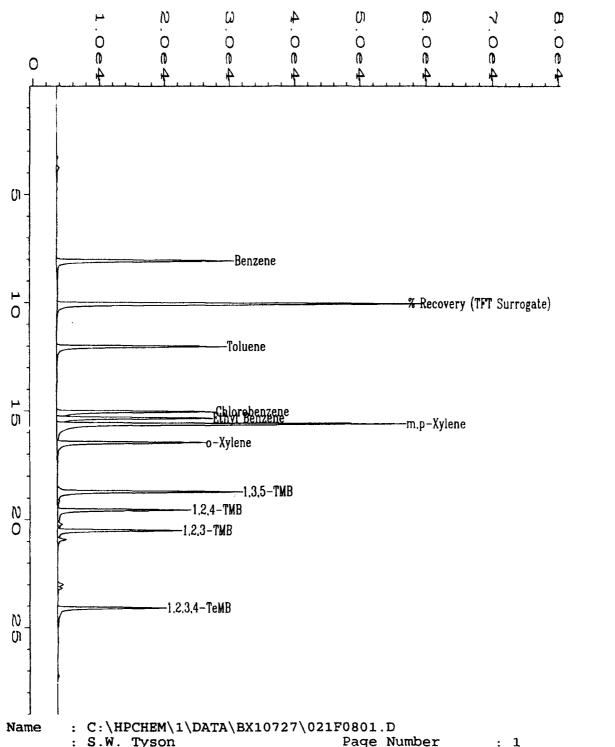
RPD: 0 out of (10) outside limits.
Spike Recovery: 0 out of (20) outside limits.

Comments:

Analyst

Approved

MS2330.XLS; 8/1/95



(

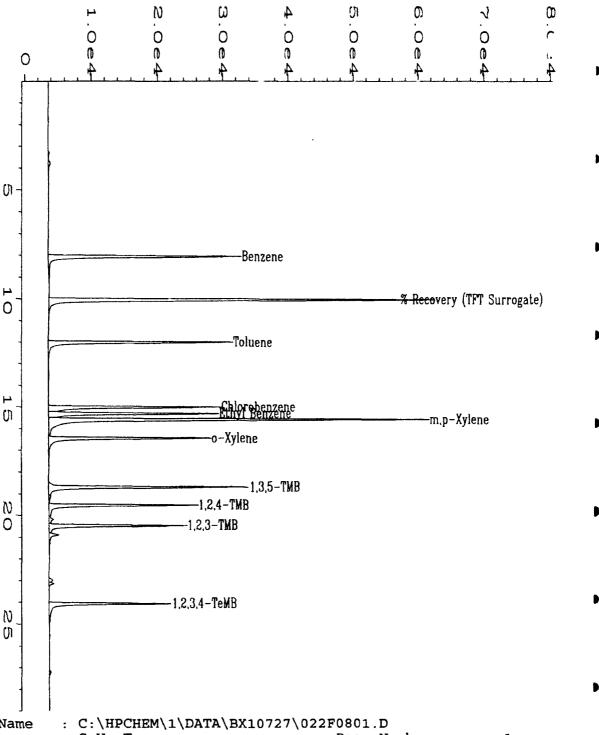
Data File Name -Operator : S.W. Tyson Page Number Instrument Vial Number : BTEX1 : 21 Sample Name : X09242MS Injection Number: 1 oun Time Bar Code: Sequence Line

squired on : 27 Jul 95 10:28 PM Instrument Method: BX10727.MTH Report Created on: 01 Aug 95 11:12 AM Last Recalib on : 27 JUL 95 02:46 PM 11:12 AM Analysis Method : BX10727.MTH

Sample Amount Multiplier ISTD Amount

Sample Info : 20 ppb Matrix Spike- Std. #1727

Client 10: 24PZ-35



Data File Name : S.W. Tyson Operator Page Number Vial Number Instrument : BTEX1 : 22 Sample Name : X09242MSD Injection Number: 1 Run Time Bar Code: Sequence Line Acquired on : 27 Jul 95 11:09 PM Instrument Method: BX10% Analysis Method : BX10727.M Report Created on: 01 Aug 95 11:12 AM Last Recalib on : 27 JUL 95 02:46 PM Sample Amount Multiplier ISTD Amount Sample Info : 20 ppb Spike Duplicate- Std. # 1727

Client 1D: 14PZ-35

EPA 602/8020 Data Report **Laboratory Control Sample (LCS)**

LCS Number

: LC S1072795

Dilution Factor

: 1.00

Date Extracted/Prepared

: 7/27/95

Method

: 602/8020

Date Analyzed

: 7/27/95

Matrix

: Water

Spike Amount (ug/L)

: 20.0

Lab File No. : BX1072710

Compound Name	Cas Number	LCS Concentration ug/L	LCS % Recovery	QC Limit % Recovery
Benzene	71-43-2	18.4	92.0	68-111*
Toluene	108-88-3	19.4	97.0	71-111*
Chlorobenzene	108-90-7	20.1	100.5	65-115*
Ethyl Benzene	100-41-4	20.2	101.0	75-115*
m,p-Xylene	108-38-3 106-42-3	21.3	106.5	74-113*
o-Xylene	95-47-6	19.4	97.0	65-115*
1,3,5-Trimethylbenzene	108-67-8	21.5	107.5	69-109 *
1,2,4-Trimethylbenzene	95-63-6	21.8	109.0	68-110 *
1,2,3-Trimethylbenzene	526-73-8	24.7	123.5	71-127*
1,2,3,4-Tetramethylbenzene	488-23-3	21.5	107.5	65-115*
Surrogate Recovery (α,α,α-Trifluorotoluene):		97%	70%-130% (QC limits)	

* = Limits established 7/5/95 KSC

QUALIFIERS:

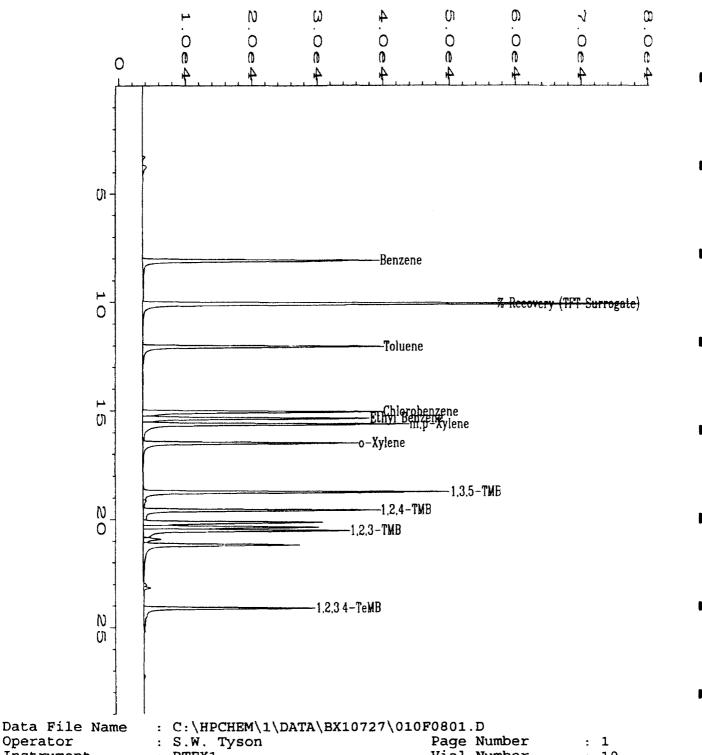
E = Extrapolated value. Value exceeds that of the calibration range.

U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

NA = Not available/Not analyzed.

LCS10727.XLS; 8/1/95



(3)

Operator Vial Number Instrument : 10 : BTEX1 Sample Name : LCS1072795 Injection Number: 1 Run Time Bar Code: Sequence Line : 8 Acquired on Instrument Method: BX107: : 27 Jul 95 02:51 PM IT Report Created on: 01 Aug 95 11:11 AM Analysis Method : BX1072/.MT Sample Amount Last Recalib on : 27 JUL 95 02:46 PM : 0 ISTD Amount Multiplier

Sample Info : Std. # 1667

EPA 602/8020 Data Report **Laboratory Control Sample (LCS)**

LCS Number

: LCS1072895

Dilution Factor

LCS

%

: 1.00

Date Extracted/Prepared

Spike Amount (ug/L)

: 7/28/95

Method

Matrix

: 602/8020 : Water

Date Analyted

: 7/28/95 : 20.0

Lab File No.

: BX10728008

QC Limit

Compound Name	Cas Number	LCS Concentration ug/L
Benzene	71-43-2	17.9
Toluene	108-88-3	19.6

00.1.p0aa .tao	~~~		, •	
	Number	ug/L	Recovery	% Recovery
Benzene	71-43-2	17.9	89.5	68-111*
Toluene	108-88-3	19.6	98.0	71-111*
Chlorobenzene	108-90-7	20.0	100.0	65-115*
Ethyl Benzene	100-41-4	20.0	100.0	75-115*
m,p-Xylene	108-38-3	20.6	103.0	74-113*
v .	106-42-3	40.4	07.0	CT 115*
o-Xylene	95-47-6	19.4	97.0	65-115*
1,3,5-Trimethylbenzene	108-67-8	21.9	109.5#	69-109*
1,2,4-Trimethylbenzene	95-63-6	22.0	110.0	68-110*
1,2,3-Trimethylbenzene	526-73-8	24.6	123.0	71-127*
1,2,3,4-Tetramethylbenzene	488-23-3	23.0	115.0	65-115 *

Surrogate Recovery (α,α,α-Trifluorotoluene):

100%

70%-130% (QC limits)

NOTES:

= Value outside QC limits, but all samples associated with this LCS are non-detect

for this compound.

QUALIFIERS:

E = Extrapolated value. Value exceeds that of the calibration range.

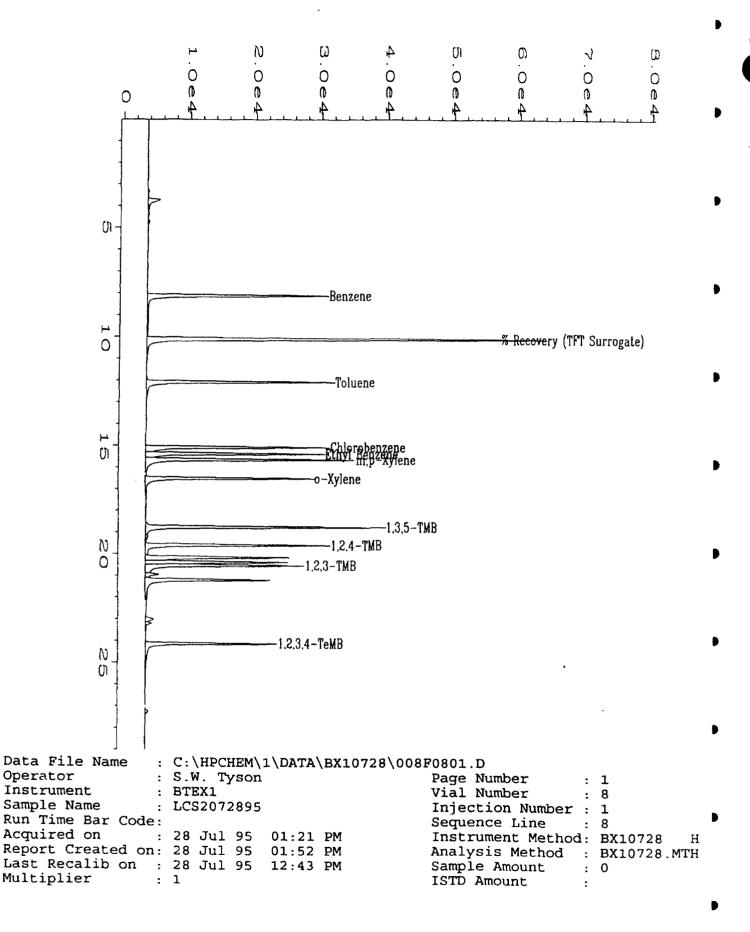
U = Compound analyzed for, but not detected.

B = Compound found in blank and sample. Compare blank and sample data.

NA = Not available/Not analyzed.

LCS10728.XLS; 8/3/95

^{* =} Limits established 7/5/95 KSC



EPA 602/8020 Data Report Laboratory Control Sample (LCS)

LCS Number

: LCS1072995

Dilution Factor

: 1.00

Date Extracted/Prepared

7/29/95

Method

: 602/8020

Date Analyzed

: 7/29/95

Matrix

: Water

Spike Amount (ug/L)

: 20.0

Lab File No.

: BX1072902

Compound Name	Cas	LCS Concentration	LCS %	QC Limit
	Number	ug/L	Recovery	% Recovery
Benzene	71-43-2	16.2	81.0	68-111 *
Toluene	108-88-3	17.1	85.5	71-111*
Chlorobenzene	108-90-7	17.8	89.0	65-115*
Ethyl Benzene	100-41-4	17.8	89.0	75-115*
m,p-Xylene	108-38-3	17.9	89.5	74-113*
	106-42-3			
o-Xylene	95-47-6	17.0	85.0	65-115*
1,3,5-Trimethylbenzene	108-67-8	19.4	97.0	69-109 *
1,2,4-Trimethylbenzene	95-63-6	19.3	96.5	68-110*
1,2,3-Trimethylbenzene	526-73-8	21.8	109.0	71-127*
1,2,3,4-Tetramethylbenzene	488-23-3	20.0	100.0	65-115*
Surrogate Recovery (α,α,α-Trifluor	otoluene):	85%	70%-130%	(QC limits)

* = Limits established 7/5/95 KSC

QUALIFIERS:

NOTES:

E = Extrapolated value. Value exceeds that of the calibration range.

U = Compound analyzed for, but not detected.

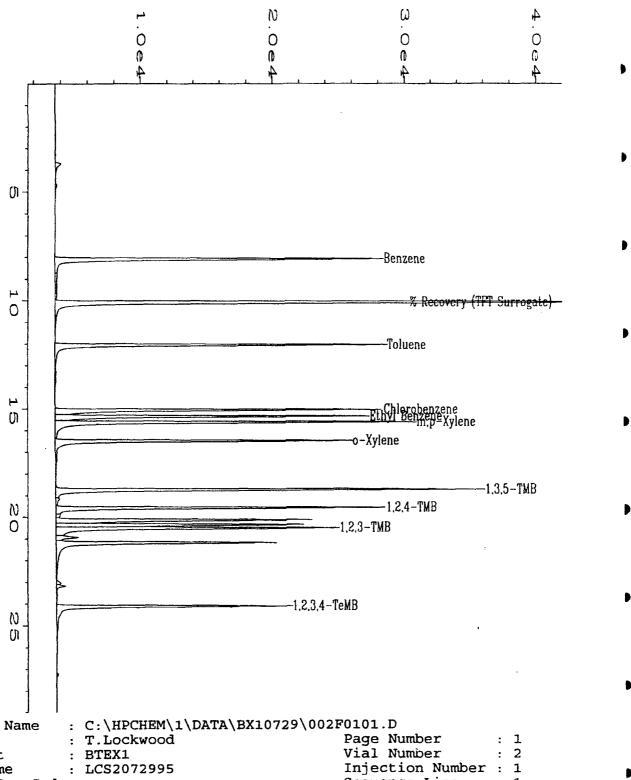
B = Compound found in blank and sample. Compare blank and sample data.

NA = Not available/Not analyzed.

Analyst

Approved

LCS10729. (LS; 8/1/95



Data File Name Operator Instrument Sample Name Sequence Line : 1 Run Time Bar Code: Instrument Method: BX10728. Acquired on : 29 Jul 95 10:27 AM Analysis Method : BX10728.MTH Report Created on: 30 Jul 95 12:36 PM Sample Amount Last Recalib on : 29 JUL 95 09:09 AM

ISTD Amount Multiplier : 1

Methane Report Form Method Blank Report

Method Blank Number Date Extracted/Prepared

Date Analyzed

: GB072895 : 7/28/95

: 7/28/95

Client Project No.

: MacDill/722450.21020 : 95-2330

Lab Project No. **Dilution Factor**

: 1.00

Method Matrix

: RSKSOP-175 : Water

Lab File No.

: GAS0728002

Sample

Compound Name	Cas Number	Concentration mg/L	RL mg/L	
Methane	74-82-8	U	0.004	

QUALIFIERS:

E = Extrapolated value.

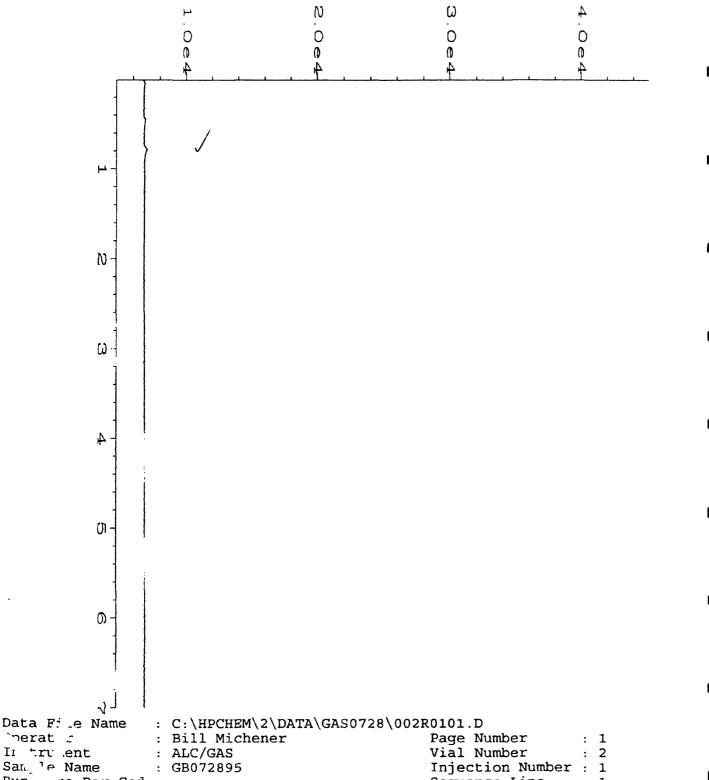
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved



Methane Report Form

Client Sample Number Lab Sample Number Date Sampled	: 24PZ-3S : X09242 : 7/21/95	Client Project No. Lab Project No. Dilution Factor	: MacDill/722450.21020 : 95-2330 : 10.00
Date Received	: 7/22/95	Method	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: GAS0728011

	Sample				
Compound Name	Cas Number	Concentration	RL		
		mg/L	mg/L		
Methane	74-82-8	0.21	0.04		

■Temperature	:	74.3 F	Saturation	Meth	0.051042584
Amount Injected	;	0.05 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.16013086
Head space created	:	4 ml	in Head Space		
Methane Area	:	118.697 ug			

Atomic weight(Methane) : _____ 16 g

QUALIFIERS:

E = Extrapolated value.

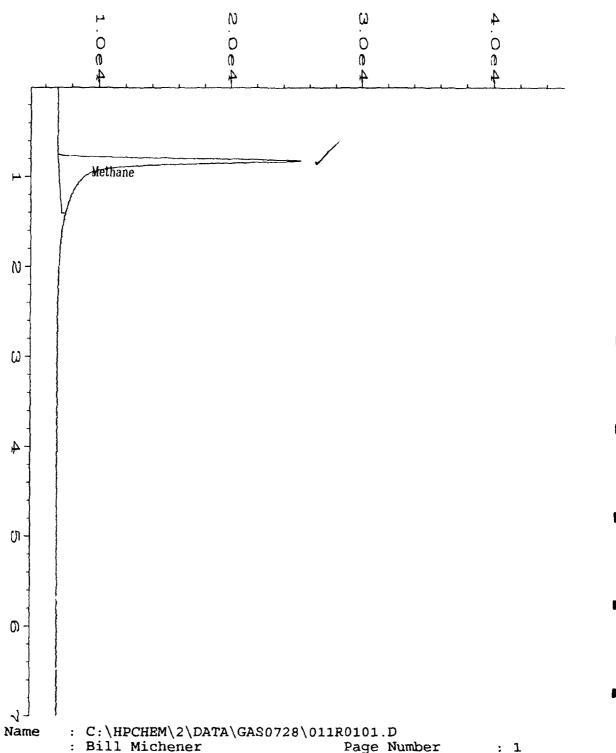
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

QL = Reporting Limit.

NA = Not Available/Not Applicable.

K. Ana



Data File Name Operator Instrument Vial Number : ALC/GAS : 11 Sample Name : X09242;10 Injection Number: 1 Run Time Bar Code: Sequence Line : 1 Acquired on : 28 Jul 95 11:06 AM Instrument Method: GASES. Report Created on: 01 Aug 95 11:54 AM Analysis Method : METH0728.M Last Recalib on : 28 JUL 95 09:46 AM Sample Amount Multiplier ISTD Amount

Sample Info : 95-2330;24PZ-3S;Water(inject 50 ul)

Methane Report Form

Client Sample Number	: 24PZ-3D	Client Project No.	: MacDill/722450.21020
Lab Sample Number	: X09245	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: GAS0728014

	Sample				
Compound Name	Cas Number	Concentration	RL		
		mg/L	mg/L	(
Methane	74-82-8	0.020	0.004		

Temperature	:	75.9 F	Saturation	Meth	0.004814293
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.015058263
Head space created	:	4 ml	in Head Space		
Methane Area	:	111.954 ug			

Atomic weight(Methane) : _____ 16 g

QUALIFIERS:

E = Extrapolated value.

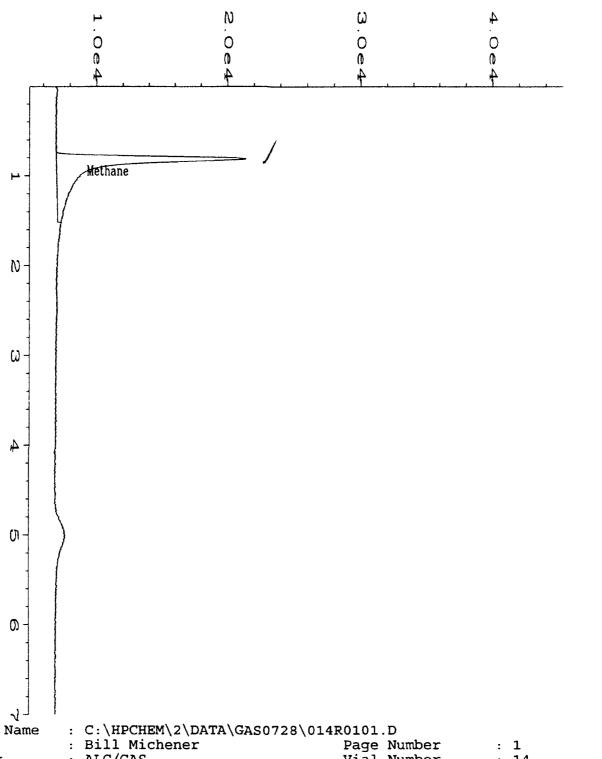
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved



Data File Name

Operator Instrument : ALC/GAS Vial Number : 14 : X09245;1 Injection Number: 1 Sample Name Run Time Bar Code: Sequence Line : 1

: 28 Jul 95 11:55 AM Instrument Method: GASES Η Acquired on Report Created on: 01 Aug 95 11:54 AM Analysis Method : METH0728.N

Last Recalib on : 28 JUL 95 C9:46 AM Sample Amount : 0 Multiplier ISTD Amount

Sample Info : 95-2330;24PZ-3D;Water(inject 500 ul)

Methane Report Form

Client Sample Number	: 24PZ-5S	Client Project No.	: MacDill/722450.21020
Lab Sample Number	: X09246	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 10.00
Date Received	: 7/22/95	Metiod	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: GAS0728015

		Sample		
Compound Name	Cas Number	Concentration mg/L	RL mg/L	
Methane	74-82-8	0.34	0.04	

Temperature	:	75.4 F	Saturation	Meth	0.082642483
Amount Injected	:	0.05 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.258732835
Head space created	:	4 ml	in Head Space		
Methane Area	:	192.181 ug			

Atomic weight(Methane) : _____ 16 g

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

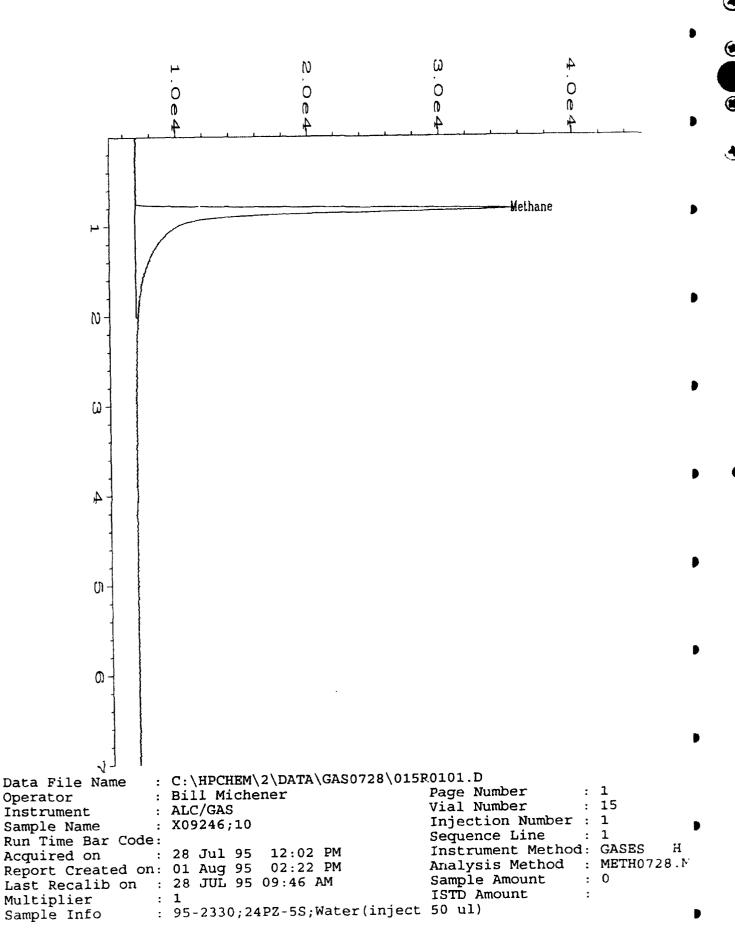
RL = Reporting Limit.

NA = Not Available/Not Applicable.

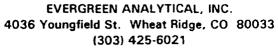
Approved

AF2330.XLS

(4)



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Client Sample Number	: 24PZ-4S	Client Project No.	: MacDill/722450.21020
Lab Sample Number	: X09247	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	· GAS0728016

Compound Name	Cas Number	Concentration	RL	
		mg/L	mg/L	[
Methane	74-82-8	0.033	0.004	
MICHIGIE	74-02-6	0.033	0.004	

Temperature	:	76.5 F	Saturation	Meth	0.008066953
Amount Injected	:	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.025203762
Head space created	:	4 ml	in Head Space		
Methane Area	•	187,593 ua			

Atomic weight(Methane) : ______ 16 g

QUALIFIERS:

E = Extrapolated value.

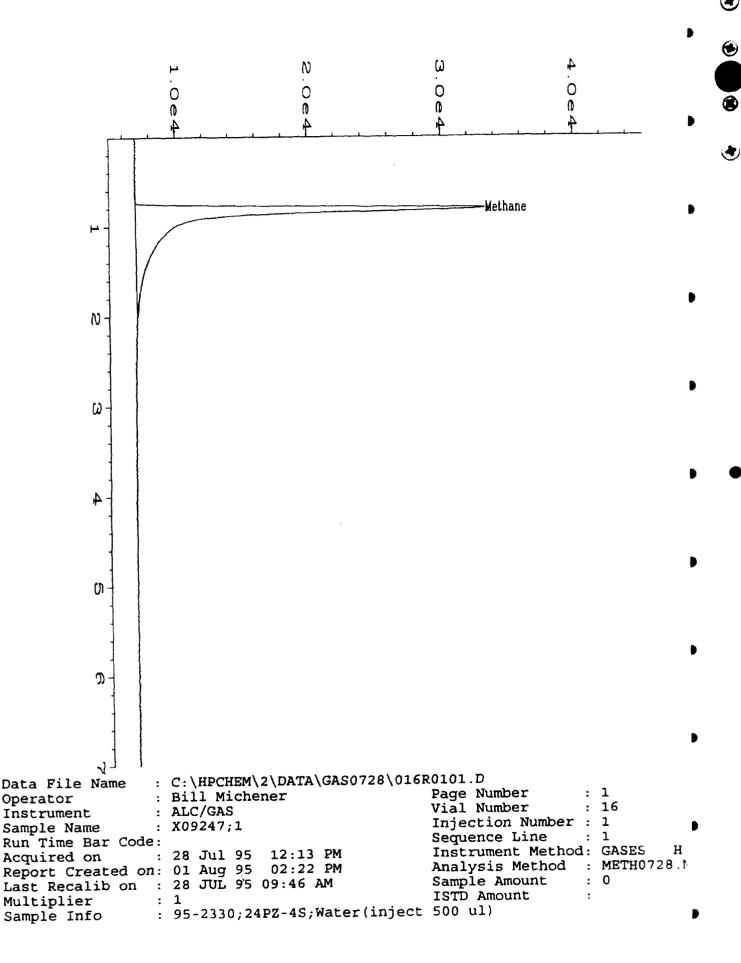
U = Compound analyzed for, but not detected.

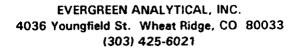
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Approved







Methane Report Form

Client Sample Number	: 24PZ-2S	Client Project No.	: MacDill/722450.21020
Lab Sample Number	: X09248	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: GAS0728017

Compound Name	Cas Number	Concentration	RL	
		mg/L	mg/L	·
				•
Methane	74-82-8	800.0	0.004	

Temperature	:	76.5 F	Saturation	Meth	0.00200301
Amount Injected	•	0.5 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	0.006258048
Head space created	:	4 ml	in Head Space		
Methane Area	•	46.579 ug			

Atomic weight(Methane) : 16 g

QUALIFIERS:

E = Extrapolated value.

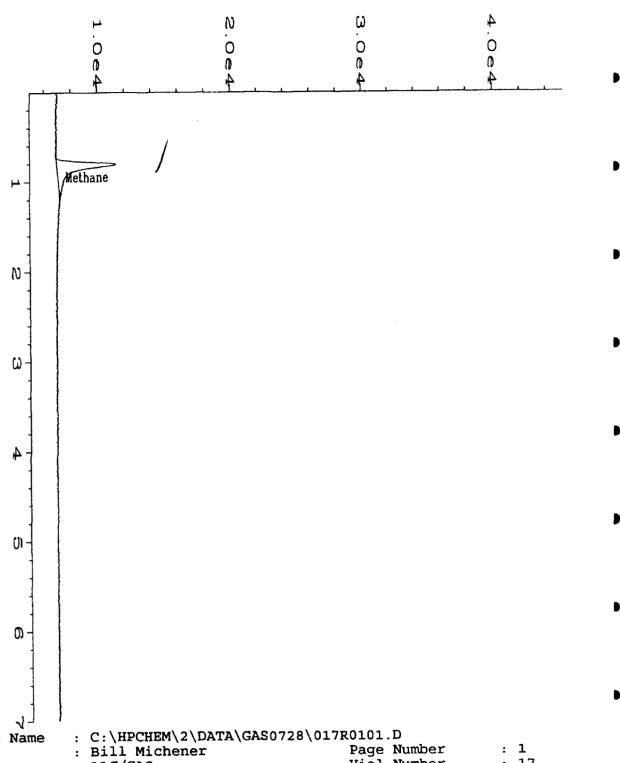
U = Compound analyzed for, but not detected.

B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

K. Cone



Data File Name Operator : 17 Vial Number : ALC/GAS Instrument Injection Number: 1 : X09248;1 Sample Name Sequence Line Run Time Bar Code: Instrument Method: GASES. : 28 Jul 95 12:34 PM Acquired on Report Created on: 01 Aug 95 11:54 AM Analysis Method : METH0728.M : 0 Sample Amount Last Recalib on : 28 JUL 95 09:46 AM ISTD Amount Multiplier : 95-2330;24PZ-2S;Water(inject 500 ul)

Sample Info





Client Sample Number	: 24PZ-2R	Client Project No.	: MacDill/722450.21020
Lab Sample Number	: X09249	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 1.00
Date Received	: 7/22/95	Method	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: GAS0728013

	Sample			
Compound Name	Cas Number	Concentration	RL	
		mg/L	mg/L	•
Methane	74-82-8	0.009	0.004	

_	Temperature	:	77.1 F	Saturation	Meth	0.002197037
•	Amount Injected	:	0.5 ml	Concentration		
	Total Volume of Sample	:	43 ml	Concentration	Meth	0.006856574
	Head space created	:	4 ml	in Head Space		
	Methane Area		51.091 ua			

Atomic weight(Methane)	:	16 a
, itemine treight (in ethalie)	•	9

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

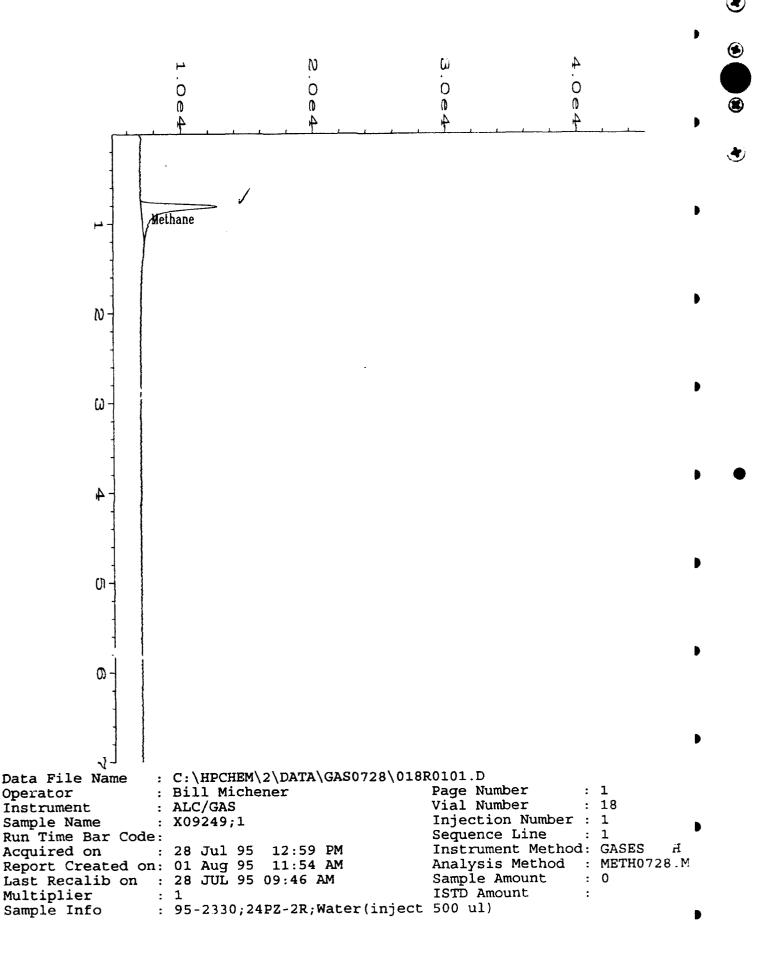
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved





Client Sample Number	: 24PZ-1S	Client Project No.	: MacDill/722450.21020
Lab Sample Number	: X09251	Lab Project No.	: 95-2330
Date Sampled	: 7/21/95	Dilution Factor	: 50.00
Date Received	: 7/22/95	Method	: RSKSOP-175
Date Extracted/Prepared	: 7/28/95	Matrix	: Water
Date Analyzed	: 7/28/95	Lab File No.	: GAS0728020

	Sample			
Compound Name	Cas Number	Concentration	RL	
		mg/L	ng/L	1
	74.00.0	2.4	0.0	
Methane	74-82-8	3.1	0.2	

Temperature	:	78.4 F	Saturation	Meth	0.750164339
Amount Injected	:	0.01 ml	Concentration		
Total Volume of Sample	:	43 ml	Concentration	Meth	2.335474898
Head space created	:	4 ml	in Head Space	_	
Methane Area	:	348.894 ug			

Atomic weight(Methane)	:	1 <u>6</u> g

QUALIFIERS:

E = Extrapolated value.

U = Compound analyzed for, but not detected.

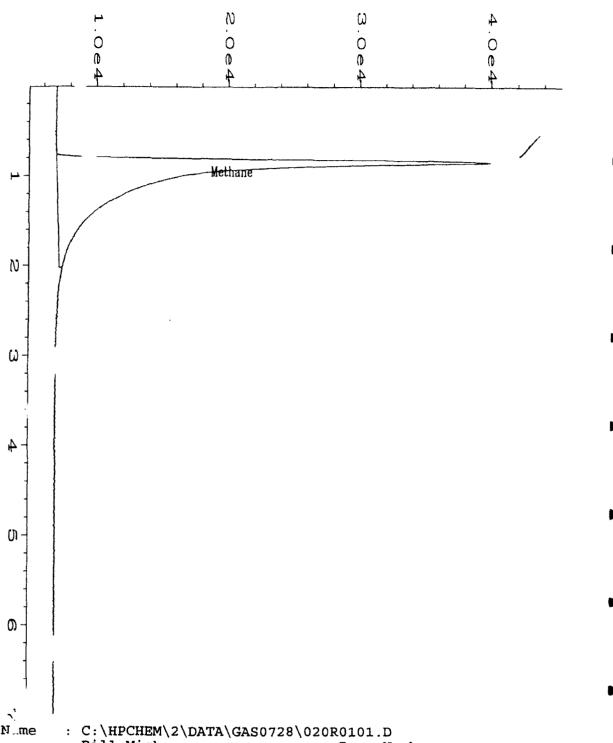
B = Compound also found in the blank.

RL = Reporting Limit.

NA = Not Available/Not Applicable.

Analyst

Approved



Data File N.me Operator : Bill Michener Page Number Irstrument : ALC/GAS Vial Number : 20 S ple Name : X09251;50 Injection Number: 1 ' n Time Bar Code: Sequence Line : 1 cquired on : 28 Jul 95 01:29 PM Instrument Method: GASES.. I teport Created on: 01 Aug 95 11:54 AM Analysis Method : METH0728.M Last Recalib on : 28 JUL 95 09:46 AM Sample Amount Multiplier ISTD Amount Sample Info : 95-2330;24PZ-1S;Water(inject 10 ul)

Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

RSK-175 Gas Method Methane Gas Matrix Spike / Matrix Spike Duplicate Report

Client Sample No. : 24PZ-3S Client Project No.

Lab Sample No. : X09242 Lab Project No. : 95-2330

Date Sampled : 7/21/95 EPA Method No. : RSKSOP-175

Date Received : 7/22/95 Matrix : Water

Date Received : 7/22/95 Matrix : Water
Date Prepared : 7/28/95 Method Blank : GB072895

E.A. MS/MSD Spike Source No. : 1719

	Spike	Sample	MS		ac
Compound	Added	Concentration	Concentration	MS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Methane Gas	500	119	690	114	N/A

	Spike	Spike MSD			C)C
Compound	Added	Concentration	MSD	RPD	Limits	
	(mg/L)	(mg/L)	%REC		RPD	%REC
Methane Gas	500	681	113	2.1	N/A	N/A

RPD:	0	out of	(1)	outside limits.
Spike Recovery:	0	out of	(2)	outside limits.

NOTES:

* = Values outside of QC limits. NA = Not analyzed/nc* available

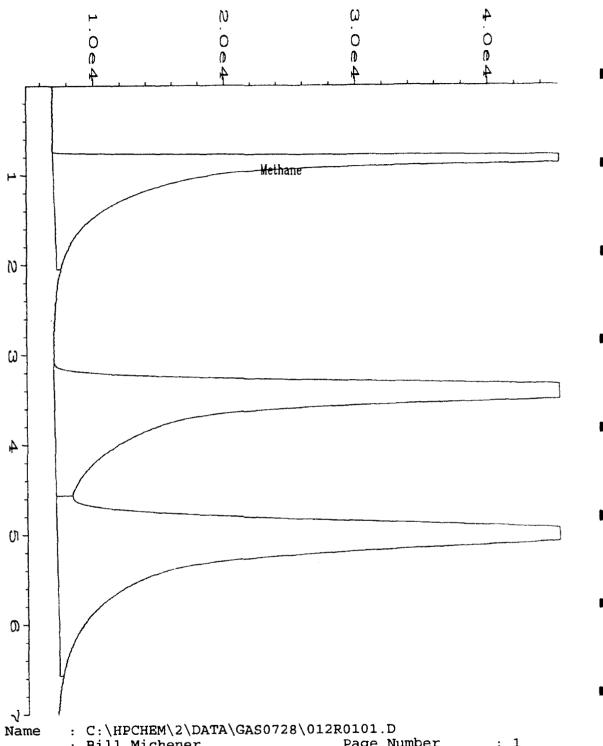
Note: The Spike was made by taking the sample and displacing 4ml of headspace with helium, Then with drawing 50ul of headspace + 50ul of a 1% methane, ethane, ethane mixture #1719 into a needle and injecting into the GC resulting in a theoretical spike concentration of 500 ppm.

Analyet

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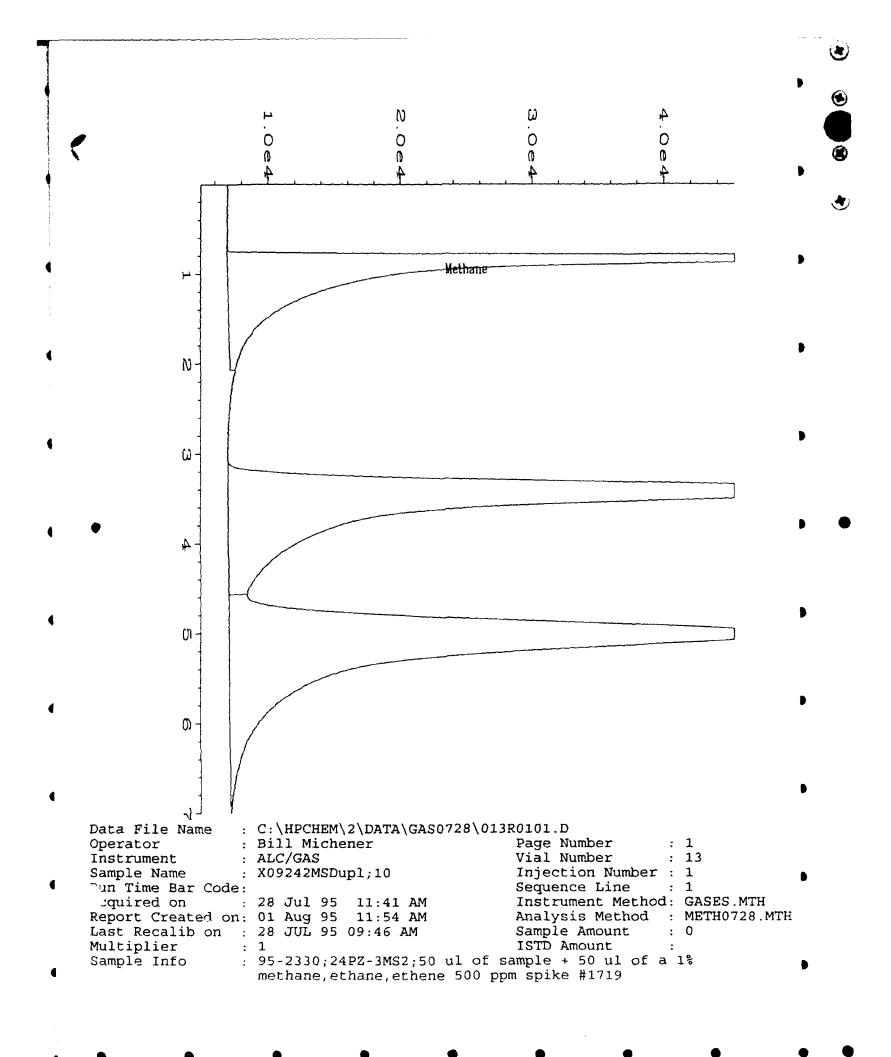
AFMS2330.XLS; 8/1/95

: MacDill/722450.21020



Data File Name : Bill Michener Page Number Operator Vial Number : 12 Instrument : ALC/GAS Injection Number: 1 : X09242MS;10 Sample Name : 1 Sequence Line Run Time Bar Code: Instrument Method: GASE. : 28 Jul 95 11:17 AM Acquired on Analysis Method : METH0728. Report Created on: 01 Aug 95 11:54 AM Sample Amount : 0 Last Recalib on : 28 JUL 95 09:46 AM ISTD Amount Multiplier : 95-2330;24PZ-3MS1;50 ul of sample + 50 ul of a 1% Sample Info

methane, ethane, ethene 500 ppm spike #1719



Evergreen Analytical, Inc. 4036 Youngfield, Wheat Ridge, CO 80033 (303) 425-6021

RSK-175 Gas Method Methane LCS Report Form

LCS No.

: LCS072895

EPA Method No.

: RSKSOP-175

Date Prepared

: 7/28/95

Matrix

: Water

Date Analyzed

: 7/28/95

Method Blank

: GB072895

E.A. LCS Source No.

: 1719

Lab File No.

: GAS0728010

	Spike	Method Blank	LCS		QC
Compound	Added	Concentration	Concentration	LCS	Limits
	(mg/L)	(mg/L)	(mg/L)	%REC	%REC
Methane Gas	500	0	516	103	N/A

Spike Recovery: 0 out of (1) outside limits.

Note: The LCS was made by taking the sample and displacing 4ml of headspace with helium, Then with drawing 450ul of headspace + 50ul of a 1% methane, ethane, ethene mixture #1719 into a needle and injecting into the GC resulting in a theoretical concentration of 500 ppm.

NOTES:

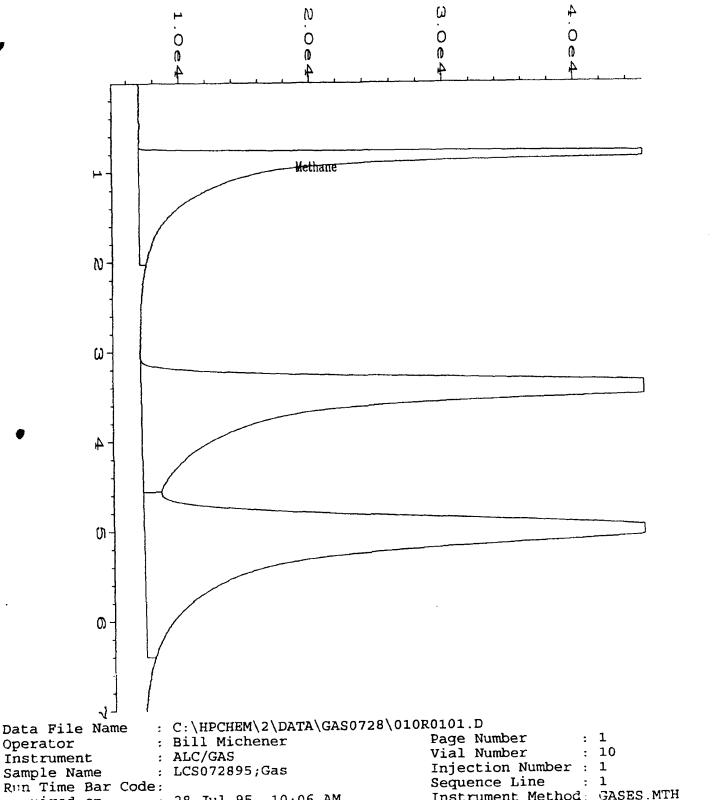
* = Values outside of QC limits.

NA = Not analyzed/not applicable.

Analyst

Approved

LCS0728.XLS; 8/1/95



Operator Instrument Sample Name Run Time Bar Code: Instrument Method: GASES.MTH : 28 Jul 95 10:06 AM nired on Analysis Method : METH0728.MTH k_port Created on: 01 Aug 95 11:54 AM : 0 Sample Amount Last Recalib on : 28 JUL 95 09:46 AM ISTD Amount Multiplier Laboratory Control Sample Sample Info

Displaced 4 ml of Water from Water filled VOA with Helium, withdrawled 450ul + 50 ul of a 1% methane ethane ethane

<u>Anions</u>

			<u> </u>		
					MacDill/
Date Sampled	:	7/21/95	Client Project ID.	:	722450.21020
Date Received	:	7/22/95	Lab Project No.	:	95-2330
Date Prepared	:	7/22/95	Method	:	EPA 300.0
Date Analyzed	:	7/23/95	Matrix		Water
•			Detection Limit	:	$0.25~{ m mg/L}$

Evergreen Sample #	Client <u>Sample ID</u>	Sulfate (mg/L)	Dilution Factor
X09242	24PZ-3S	5.2	1X
X09243	24PZ~3MS1	5.5	1X
X09244	24PZ-3MS2	5.3	1X
X09245	24PZ-3D	164	10X
409246	24PZ-5S	5.0	1X
X09247	24PZ-4S	18.4	1X
X09248	24PZ-2S	34.9	1X
X09249	24PZ-2R	36.8	1X
X09251	24PZ-1S	0.86	1X
Method Blank	c (7/23/95)	<0.25	

Ouality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery	
X09248	24PZ-2S Matrix Spike	10.0	34.9	46.5	116	
X09248	24PZ-2S Matrix Spike Dup	10.0	34.9	45.9	109	
	MS/MSD RPD				5.7	

Analyst

Approved 2330tm.25

<u>Anions</u>

	The state of the s		
			MacDill/
Date Sampled : 7/21/95		:	722450.21020
Date Received: 7/22/95		:	95-2330
Date Prepared: 7/22/95		:	EPA 300.0
Date Analyzed: 7/23/95	Matrix	:	Water
	Detection Limit	:	0.25 mg/L

Evergreen <u>Sample #</u>	Client <u>Sample ID</u>	Chloride (mg/L)	Dilution Factor
X09242	24PZ-3S	6.5	1X
X09243	24PZ-3MS1	7.4	1X
X09244	24PZ-3MS2	6.5	1X
X09245	24PZ-3D	1490	100X
X09246	24PZ-5S	8.1	1X
X09247	24PZ-4S	6.9	1X
X09248	24PZ-2S	9.5	1X
X09249	24PZ-2R	12.1	1X
X09251	24PZ-1S	27.2	1X
Method Blank	(7/23/95)	<0.25	

Quality Assurance

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	% Recovery
X09248	24PZ-2S Matrix Spike	10.0	9.5	20.8	112
X09248	24PZ-2S Matrix Spike Dup	10.0	9.5	20.8	112
	MS/MSD RPD				0.080

Analyst

Approved

2330tm.25

Anions

			· · · · · · · · · · · · · · · · · · ·		MacDill/
Date Sampled			Client Project ID.	:	722450.21020
Date Received	. :	7/22/95	Lab Project No.	:	95-2330
Date Prepared	. :	7/22/95	Method	:	EPA 300.0
Date Analyzed	. :	7/23/95	Matrix	:	Water
-		• •	Detection Limit	:	0.076 mg/L

Evergreen <u>Sample #</u>	Client <u>Sample ID</u>	Nitrite-N(mg/L)	Dilution Factor
X09242	24PZ-3S	<0.076	1X
X09243	24PZ-3MS1	<0.076	1X
X09244	24PZ-3MS2	<0.076	1X
X09245	24PZ-3D	<0.76*	10 X
X09246	24PZ-5S	<0.076	1X
X09247	24PZ-4S	<0.076	ıx
X09248	24PZ-2S	0.084	1X
X09249	24PZ-2R	0.089	1X
X09251	24PZ-1S	<0.076	1 X
Method Blank	k (7/23/95)	<0.076	

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result (mg/L)	۶ <u>Recovery</u>
X09248	24PZ-2S Matrix Spike	10.0	0.28	10.2	100
X09248	24PZ-2S Matrix Spike Dup	10.0	0.28	9.8	95
	MS/MSD RPD				4.5

* Increased detection limit due to matrix interference.

** Quality assurance results reported an Nitrite (NO2).

Analyst

Approved

2330tm.25

<u>Anions</u>

				MacDill/
Date Sampled :	: 7/21/95	Client Project ID.	:	
Date Received :	7/22/95	Lab Project No.	:	95-2330
Date Prepared :	: 7/22/95	Method	:	EPA 300.0
Date Analyzed :	: 7/23/95	Matrix	:	Water
_		Detection Limit	:	0.056 mg/L

Evergreen Sample #	Client <u>Sample ID</u>	Nitrate-N(mg/L)	Dilution Factor
X09242	24PZ-3S	<0.056	1X
X09243	24PZ-3MS1	0.068	1X
X09244	24PZ-3MS2	<0.056	1X
X09245	24PZ-3D	<0.056	1X
X09246	24PZ-5S	<0.056	1X
X09247	24PZ-4S	1.3	1X
X09248	24PZ-2S	8.2	1X
X09249	24PZ-2R	8.9	1 X
X09251	24PZ-1S	<0.056	1X
Method Blank	c (7/23/95)	<0.056	

Quality Assurance**

		Spike Amount (mg/L)	Sample Result (mg/L)	Spike Result <u>(mg/L)</u>	ዩ <u>Recovery</u>
X09248	24PZ-2S Matrix Spike	10.0	36.5	47.8	113
X09248	24PZ-2S Matrix Spike Dup	10.0	36.5	46.8	103
	MS/MSD RPD				9.0

** Quality assurance results reported an Nitrate (NO_3) .

Approved

2330tm.25



MODEL INPUT PARAMETERS AND RELATED CALCULATIONS

,					
Analyte			OT-24	OT-24 theoretical	
	(A.D. Little, 1	1987)	product sample	product BTEX content	int ad
	(mg/L)		(mg/L)	(mg/L)	
penzene	3750		4.93	84	
toluene	9975		0.1	2115	The state of the s
ethylbenzene	2775		2.45	538	The second of th
xylenes	17400		18.01	3307	
total BTEX	33900		25.49	6044	
Weathering rate #1:	: Assume that pro	product i	ntroduced soon afte	ir EMTL operations bega	duct introduced soon after EMTL operations began, and has been weathering for 40 years.
Weathering rate #2:	: Assume that pro	product	ntroduced in 1988	ust before discharge to	duct introduced in 1988, just before discharge to drain fields ceased in 1989, and has been
	i				and the second in 1909, and has been weathering
	weathering rate	ie 1	weathering rate 1	weathering rate 2	weathering rate 2
	(mg/L per year)	ar)	(percent per year)	(mg/L per year)	(percent per year)
penzene	91.65		2.44	523.71	13,97
toluene	196.50		1.97	1122.86	11.26
ethylbenzene	55.93		2.02	319.57	11.52
xylenes	352.33		2.02	2013.29	11.57
total BTEX	696.40		2.05	3979.43	11.74
-					
BTEX content requ	nired to produce	observe	ed dissolved BTEX	concentration in groundw	a/ BTEX content required to produce observed dissolved BTEX concentration in groundwater based on partitioning calculations.
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\45021\tables\ot24\w	nather xis			A STATE OF THE PARTY OF THE PAR	The second secon

Page 1

③

ES ENGINEERING-SCIENCE, INC. AFCEE/MALOILL AFB Job No. 722450, 21050 Sheet ___ of ___ Model Grid win Calibrates JKH Date 1/4/96 Subject -Ву Transmissivity Array /U // 12 13 14 15 /6 /2 / Rev. F 19 20 21 $\chi \chi \chi \sqrt{\overline{\chi} \chi}$ X $X \times X \times X \times$ 000 в Ν 0 0 OD D B B B B B B B B Û 8 8 8 8 0 0 0 8 0 0 D 0 BB B EMTLD D D B D 0 0 8 8 8 8 D D O B B D B BBBB B B B B B B B B B B B B B B E 7 Vulnes enterel BBB В 18 8 B into model as AAAAABBBAB BBBBAASAAAA Ft 2/sec, and Í reported Lucas BBHAMHA AAA AAA AAA f+2/00) BBAAJAAA AAAAA AAA 12 BBBBB 8888888888 X= No Flow 13 BBBB 8 (BB B B B B B B B B Cell 14 CCBBBBBBBBBBBBBB BBBB 115 16 A = 108 17 E = 226 < = 404 15 6 6 6 B B 0 = 472 \B B B B B B B B B B B B B B 2. E = 539 BBBBBBBBBBBBBBBBB F = 135 Zi = 270 BB 22 23 26 27 BBB 21 29 フ゜ Χ INACTIVE CELLS -31 32 33 34

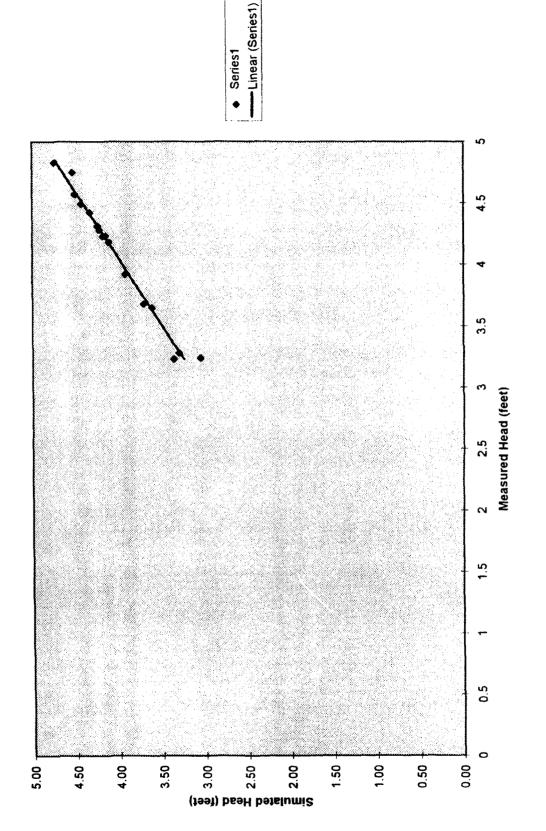
35 76 37 **(4)**

ES ENGINEERING-SCIENCE, INC. AFCEE/MACOILL AFO Job No. 722450, 21050 Sheet ___ of ___ and with Aquifer Rikus By Madel 1/4/85 JKH Rev. -N 3 BOUNDARY OF FIREIT AREA Χ Valmo 15 feet 13 Zofut Zı 23 XXX 24 zί 27 28 X 29 X 了 31 INACTIVE CELLI 32 33 34 35 76

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Maculli AFB	, Site OT 24				
		and the second s			
Well	Cell Location	Measured Head	Simulated Head	Hm-Hs	(Hm-Hs)2
	x,y	Hm	Hs	***************************************	entimental est established a film of
24MP-4S	(17,4) (17,5) (16,4) (16,5)	4.83	4.74	0.09	0.0081
MD24-5	(14,5) (14,6) (15,5) (15,6)	4.75	1	0.22	0.0484
MD24-1	(7,6) (8,6)	4.23	4.18	0.05	0.0025
MD24-2	(12,5) (12,6) (13,5) (13,6)	4.49	4.43	0.06	0.0036
MD24-3	(7,4) (8,4)	4.42	4.33	0.09	0.0081
MD24-4	(12,4)	4.57	4.50	0.07	0.0049
24MP-2S	(9,6) (9,7) (10,6) (10,7)	4.28	4.22	0.06	0.0036
MD24-6	(11,7) (11,8)	4.23	4.15	0.08	0.0064
MD24-7	(7,8) (7,9) (8,8) (8,9)	3.92	3.92	0	0.0000
MD24-9	(6,6)	4.18	4.11	0.07	0.0049
24MP-5S	(6,4) (6,5)	4.31		0.07	0.0049
24PZ-1S	(10,11) (10,12)	3.23		-0.13	0.0169
MD24-10	(5,10) (6,10)	3.68	3.71	-0.03	0.0009
24PZ-2S	(4,13) (4,14)	3.65	3.61	•	
24PZ-3S	(7,15)	3.28	3.3	-0.02	0.0004
24PZ-5S	(6,19)	3.24	3.05	0.19	0.0361
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		RMS (square root of av	erage of squares of di	fferences)	0.097243
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		RMS as a percentage of	f the head drop	<u> </u>	5.402403
		over the model domain		1	0.70270.
		Over the model delines	The state of the s	<u> </u>	
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Simulated Vs. Measured Head, Calibrated Flow Model, Site OT 24, MacDill AFB



Page 1

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			USING	THE METH		K AND ALCANTA	R (1995)	Water Annual Control of the Control	ļ
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				<u>, </u>	MACDILL AFB, F	LORIDA	- 	,	į.
				: }				A second	
				ļ	Distance	B, T, E, & X (µg/L)		4.	•
				Point	Downgradient	Mar-95			
				24MP-1S	0	2840	L		1
				MD24-6	55.2	514			
				24PZ-1S	202.9	180		1 "	1
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	Fotal BTEX Consentration (ug.L.)								
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and the second section of the second				 		TANKA TITALIAN (N VX)	-1)		
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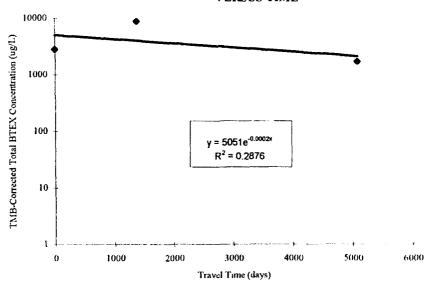
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			SITE OT 2-		***			
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		M	ACDILL AFB, F	LORIDA				
			Distance	B, T, E, & X (μg/L)	1	İ	- I	
		Point	Downgradient	Mar-95			1	
		24MP-1S	0	2840		İ	•	
1		MD24-6	55.2	514	Ī	•	•	
		24PZ-1S	202.9	180		1	•	
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			Distance Downgrad	lient (ft)				
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			ì =	$v_c/4\alpha_x([1+2\alpha_x(k/v_x)]$	² -1)		· • • • • • • • • • • • • • • • • • • •	
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				0.057		•	Ì	
			where v _c =	0.057	-	-	ŧ	
l		and a communication of the street of the str	$\alpha_{\kappa} =$	30			-	
1			k/v =	0.0123		.	1	
			therefore λ =	9.60E-04			1	

FIRST-ORDER RATE CONSTANT CALCULATION USING TMB AS A CONSERVATIVE TRACER SITE OT 24 INTRINSIC REMEDIATION TS MACDILL AFB, FLORIDA

Point	Distance Downgradient (ft)	Travel Time Between Upgradient and Downgradient Point (days)	Measured Total BTEX Concentration (µg/L)	Total Trimethylbenzene Concentration (µg/L)	Trimethylbenzene- Corrected Total BTEX Concentration (µg/L)
24MP-1S	0	0	2840	65	2840
MD24-6	55	1375	514	3.8	8792
24PZ-1S	203	5075	180	0.4	1710

 $v_c = 0.04$ ft/day

PLOT OF TMB-CORRECTED TOTAL BTEX CONCENTRATION VERSUS TIME



BTEX Partitioning Calculations

		ڻ	♂	ڻ	ਹੈ
	K K	JP4	JP-4	OT 24	OT 24
		(mg/L)	(mg/L)	(mg/L)	(mg/L)
Benzene	382	3750	9.817	8	0.013
Toluene	1175	9975	8.489	-	0.001
Ethylbenzene	4142	2775	0.670	2.5	0.001
o-Xylene		7575		4.7	
m-Xylene		7200		7.3	
p-Xylene		2625		6.1	
Total Xylenes	4793	17400	3.630	18.1	0.004
Total			22.606		0.018

What is the BTEX concentration of LNAPL that could cause a dissolved BTEX concentration of 2,840 ug/L?

	K(fw)	C(w)	C(f)	
benzene	382		0.22	84
toluene	1175		1.8	2115
ethylbenzene	4142		0.13	538
xylenes	4793		69.0	3307
total BTEX			2.84	6045

1:/45021/tables/ot24/fuelpart.xls

(4)

③

888

22-141 22-142 22-144

- a) Linear GW velocity = no. 15++ lday = 0.046 m/day
- b) porority = no,30
- c) Soil Bulk density = ~ 1.6 g/cm3
- d) Distribution Coefficients (kd) (for BTEX)

B 0,221 T 0,572 E 1,310 1,105 (awaye 7 M, 0, 4 p xykmas)

e) Starting Concentration (Cow) are as follows:

B 220 mg/L T | for mg/L E 130 mg/L X 690 mg/L

Assumptions:

- a) 10 90 9 equilibrium will be reached with each Flord. A

 Value of 100 90 was not selected become of limited

 Contact there and became some contaminant mass will

 be in contact with Flowing pose water with each flush.

 Choosing a value less than 100 90 is also more conservative.
- 6.) Simulated V-lune = Im^2 NIST of Soil = $(1.6 \text{ J/cm}^2)(\frac{10^6 \text{cm}^2}{\text{m}^2})(\frac{1 \text{ ks}}{1000}) = /600 \text{ ks/m}^2$ NOSS of water = $(1.6 \text{ J/cm}^2)(\frac{0.3 \text{ cm}^2 \text{Hz}^2}{\text{cm}^3 \text{ ss}^2 \text{ tr}}) = \frac{0.35}{\text{cm}^3} = 300 \text{ ks/m}^3$
- approximately 17 this peryent Through Soil mass

1 = 1 = 21.7 day = 0,06 yr

22-141 50 SHEETS 22-142 100 SHEETS 22-144 200 SHEETS Compute Pore Volumes exchanged pur day wing larger
Aquifer Volume (This is hald be none accurate Than using
a 1m3 volume)
assumes pumping of only I well

Assume average &w pumping rate \$2.5 spm (from CH2m Hill, 19916) (CH2m Hill assumed Zuells panging total of Spm)
The arca of contaminate Soil can be approximately a circle with a diameter of 60 feet. Deretore, the volume of aquiter that we want to flush with fresh water of is a cylinder with a diameter of 60' & aleight of 20'.

The Volume of weter is this extende = V= 412/4 perenty

= T(J.f4)2 (20ff) (0,30) = 16,961 ft3 = 1 fore volume

Pore Volumes exchanged perday at the permeter of this Cylinde;

This is answered because the number of providence exchanges per year will increase as the grandwater moves close to the extraction well. For example, at a radial distance of 15 feet from the extraction well:

$$V = Y(15f_1)^2(z_1)(0.30)$$

= $4,240 f_1^3$

and the number of por volumes per jew increments 41

The remediation fine decrease as you approach the extraction well.

Select an average rate of 25 pore volumes peryen = 0.03/day

(=1 pore volume every 14 days)

Gama

Equations:

Ord No.

- a) $kd = \frac{ms/ky}{my/L} = \frac{nall advoked to soil}{mass dissolverin EW}$ i. $my/L = \frac{ms/ky}{my/k} \times \frac{nall}{ky} \times$
- b) $M_{SARW} = Mass of contaminant in <math>Im^3 B$ againste $M_{SARW} = II M M M Suil$ $M_W = II M M M Water$

 $M_{s,ew} = M_{s,ed} - M_{w}$ $M_{s,ew} = M_{s,ew}$ $M_{$

1. ms/ks (emaining) = 3/kg initial - [(25/2 reacted) (6.18 /ks)]

The following spreadsleet shows the calculations for BTEX. Note That leading efficiency WAS defined to get from Cost Com.

Butch Flush Model

PUMP-AND-TREAT CONTAMINANT REMOVAL EFFICIENCIES SITE OT 24

INTRINSIC REALEDIATION TS MACDILL AIR FORCE BASE, FLORIDA

S	Soil Concen. Water Concen		7500.3 6.78.8		7257.9 656.8				6796.5 615.1					4434,4 401,3	4362.1 394.8	4291.1 388.3	2	4152,4 375.8	4084.8 369.7	4018.2 363.6					-		377 5 34.5
<u> </u>	Water Concen.	130.0	128.2	126.5	124.7	123.0	121.3	9.611	118.0	116.4	114.8	113.2	83.5	82.3	81.2	80.1	79.0	6.77	76.8	75.8	74.7	1 1	6.01	8.01	9.01	10.5	- 203
Ethylbenzene	Soil Concen.	1703.0	1679.6	1656.5	1633.8	1611.3	1589.2	1567.3	1545.8	1524.6	1503.6	1483.0	1093.8	8.8701	1063.9	1049.3	1034.9	1020.7	1006.7	992.8	979.2	145.1	143.1	141.1	139.2	137.3	135.1
	Water Concen.	1800.0	1739.1	1680.3	1623.4	1568.5	1515.4	1464.1	9't111	1366.7	1320.5	1275.8	598.3	578.1	558.5	539.6	521.3	503.7	486.7	470.2	154.3	3.9	3.8	3.7	3.5	3.4	2.3
Toluene	Soil Concen.	9576.0	9252.0	8939.0	8636.5	8344.3	8062.0	7789.2	7525.7	7271.0	7025.0	6787.3	3183.0	3075.3	2971.2	2870.7	2773.6	2679.7	2589.1	2501.5	2416.8	20.9	20.2	19.5	18.9	18.2	261
	Water Concen.	220.0	202.1	185.6	170.5	156.6	143.9	132.1	121.4	111.5	102.4	94.1	14.5	13.3	12.2	11.2	10.3	9.5	× 7	0.8	1.7	0.0	0.0	0.0	0.0	0'0	0.0
Benzene	Soil Concen.	486.2	9 977	410.2	376.8	346.1	317.9	292.0	268.3	246.4	226.3	207.9	32.1	20.5	27.1	24.9	22.8	21.0	19.3	17.7	16.3	0.0	0.0	0.0	0.0	0.0	3 4
Im3 Porc	Volume	C		. ^	3 6	1		9	-	×	6	101	2 6	200	60 60	35	3/2	37	38	30	5	178	170	180	181	182	
	Davs	C		28	67	7,5	2 2	7.8	80	2	176	071	140	635	704	001	203	21.5	537	546	095	2676	7/17	2520	7257 FESC	2548	

Shaded boxes show when total BTEX is less than 1,000 and 50 micrograms per liter.

APPENDIX E MODEL INPUT AND OUTPUT FILES

APPENDIX F REMEDIAL ALTERNATIVE COST CALCULATIONS

022/722450/203,**WW**6

Alternative I: Long-term Monitoring Cost calculations Cost calculations Cost calculations Cost calculations Cost calculations Cost calculations Unit Price Subtoral Total Source (If applicable) Miss calculations (new LTMPOC w-ils outside of forest) Well Installation (a.g. LTMPOC w-ils outside of forest) Well Installation (a.g. LTMPOC w-ils outside of forest) (b.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside of forest) (a.g. LTMPOC w-ils outside outs	MacDill AFB CalculationsSite OT 24)T 24							
Cost calculations									
Cost calculations Description Unit Qtv. Unit Price Subtotal Total Source (If applicated Description Unit Qtv. Unit Price Subtotal Total Source (If applicated Substitution Substit	Alternative I: Long-term Monitoring								
Description			Cost calculations						
Soil Disposal drum \$1,000 \$2,000 \$1,850 \$1,000 \$2,000	Misc calculations		Description	Unit	Otá.	Unit Price	Subtotal	Total	Source (If applicable
Soil Disposal drum \$1,000 \$2,000 \$2,000 \$2,000 \$3,000	(new LTM/POC wells outside of	forest)							
Mobilization ca 2	Number of shallow LTM/P	OC wells:	Well Installation				and the state of t	\$ 4.850	
Well Installation In ft 39 \$ 50 \$ 1,950 Soil Disposal drum 3 \$ 100 \$ 300 Soil Samples ca 3 \$ 200 \$ 600 Vity. and corrosivity for disposal purposes California	Number of wells:	3	Mobilization	ខ	2	\$ 1,000	\$ 2,000		:
Soil Disposal drum 3 \$ 100 \$ 300 Soil Samples ca 3 \$ 200 \$ 600 Vity. and corrosivity for disposal purposes	Depth each:	<u> </u>	Well Installation	ln fi	39	\$ 50	\$ 1.950		
Soil Samples ca 3 \$ 200 \$ 600			Soil Disposal	drum	m	\$ 100	300	1	The second secon
ivity, and corrosivity for disposal purposes. Wellpoint Installation Well Materials ea 7 \$250			Soil Samples	es	3	\$ 200	009 \$	and the cold of the last on the last of th	
Wellpoint Installation Well Materials ea 7 \$250	Note: Soil samples analyzed for BTEX, TP	PH, reactivit	y, and corrosivity for dis	ind lesods	poses.				
Wellpoint Installation Well Materials ea 7 \$250									
Wellpoint Installation Well Materials ea 7 \$250	Costs for Manually-Driven Wellpoints (in	n forest)							
wellpoints: 7 Well Materials ea 7 \$250	Number of shallow wellpo	oints:	Wellpoint Installati	on	-			\$1,750	
	Number of wellpoir	ints: 7	Well Materials	ea	7	\$250	-		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Depth each:								
									And the second section is the second section of the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section in the second section is the second section in the second section is the second section in the second section is the second section in the second section is the second section in the second section is the second section in the second section in the second section is the second section in the section is the second section in the section is the second section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is the section in the section is

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Alternative 1: Long-Term Monitoring and Institutional Controls

Standard Rate Schedule

Standard Rate Schedule							
Billing	Billing		Install New				
Category		Task 1	LTM/POC		Sampling	H .	Reporting
Cost Code/(Billing Category)	Rate	(hrs)	Wells (\$)	(hrs)	(\$)	(hrs)	& PM (\$)
Word Processor 88/(15)	\$30	0	\$0	0	\$0	20	\$600
CADD Operator 58/(25)	\$47	0	\$0	0	\$0	20	\$940
Technician 42/(50)	\$40	50	\$2,000	30	\$1,200	30	\$1,200
Staff Level 16/(65)	\$57	50	\$2,850	30	\$1,710	60	\$3,420
Project Level 12/(70)	\$65	8	\$520	5	\$325	40	\$2,600
Senior Level 10/(80)	\$85	2	\$170	1	\$85	5	\$425
Principal 02/(85)	\$97	0	\$0	0	\$0	()	\$0
Total Labor (hrs \$)		110	\$5,540	66	\$3.320	175	\$9,185
ODCs					.		
Phone			\$20		\$10		\$40
Photocopy			\$10		\$5		\$100
Mail			\$100		\$200		\$50
Computer			\$100		\$0		\$400
CAD			\$0		\$ 0		\$200
WP			\$0		\$0		\$200
Travel			\$200		\$200		\$0
Per Diem			\$100 \$700		\$200		\$0
Eqpt. & Supplies			\$700		\$1,000		\$0
Total ODCs			\$1,230		\$1,615		\$990
Outside Services							
LTM/POC Well Installation Cos	ts		\$6,600		\$0		\$0
Laboratory Fees		6 wells		8 wells	\$3,300		\$0
Other: Maintain Institutional Co	ntrols		\$0		\$0		\$5,000
Total Outside Services			\$8,200		\$3,300		\$5,000

Proposal Estimate	Task 1	Task 2	Task 3
Labor	\$5,540	\$3,320	\$9,185
ODC's	\$1,230	\$1,615	\$990
Outside Services	\$8,200	\$3,300	\$5,000
Total by Task	\$14,970	\$8,235	\$15,175
Total Labor	\$18,045		
Total ODCs	\$3,835		
Total Outside Services	\$16,500		
Total Project	\$38,380		

Task 1: Install New LTM/POC Wells

Task 2: Sampling per Event

Task 3: Reporting/PM per Event.

COSTS.XLS\LTM

2/12/96\9:51 AM

Notes for Alternative 1 Cost Spreadsheet, Continued.

See attached sheet for well installation details.

Lab fees for task 1 assume offsite analysis of 6 wells for aromatic/halogenated VOCs plus 2 QC samples.

Lab fees for task 2 assume offsite analysis of 8 wells for aromatic/halogenated VOCs and methane, plus 3 QC samples for VOCs.

OT 24, MacDill AFB, Alternative 1 Present Worth Costs	AFB, Altern	ative 1 Preser	t Worth Cost	S		
Assume Annual Inflation Factor	Inflation Fact	tor = 7%				
Present Worth Factor (PWF) 1yr = [(1+0.07)-1]/(0.07)(1+0.07) = 0.93	actor (PWF)	1yr = [(1+0.07)-1)(0.07)(1-(.07) = 0.93		
PWF (10 years) = [(1+0.07)10-1]/(0.07)(1+0.07)10 =7.02	= [(1+0.07)1	0-1)(0.02)(1+0	1.07)10 =7.02			
	80		28 11 00			
PVVF (26 years) = [(1+0.07)*-1]/(0.07)(1+0.07)** =11.83	= ((1+0.07)	0+1)(/0.0)/(1-	0//= =11.83			
PW Cost for 1st 10 years of annual sampling:	10 years of a	annual samplin		PW = (7.02)(8,235) = \$57,810	The state of the s	
Biannual Ground	water Sampl	ing Costs from	year 11 to yes	Biannual Groundwater Sampling Costs from year 11 to year 25 (assume 8 sampling events)	mpling events):	
Year		Cost	Cum. Sum	Cum. PW		
	10	4136	57,810	57,810		
	11	3846.48	61656.48			
	12	3577.2264	66233.7064	61,387		
	13	3326.82055	68560.527			
	#	3093,94311	71654.4701	64,481		
	15	2877.3671	74531.8372			
	16	2675.9514	77207.7886	67,157		
	17	2488.6348	79696.4234			
	18	2314.43036	82010.8537	69,472		
	19	2152.42024	84163.274			
	20	2001.75082	86165.0248	71,473		
	21	1861.62826	88026.6531			
	22	1731.31429	89757.9673	73,205		
	23	1610.12229	91368.0896			
	24	1497.41373	92865.5034	74,702		
	25	1392.59477	94258.0981			
	26	1295.11313	96563.2112	75,067		
			- 1000 47	-		
Maintain institutional controls	nai controis	FW = (11.83) (5,000) =	= (000'e) (Oct box	
Install New Wells.	PW = (0.9	PW = (0.93) (14,970) =			\$13,822	
					FORTON TO NO MAN AND AND AND AND AND AND AND AND AND A	
Groundwater Sampling (see above)	npling (see a	bove) =			\$75,987	

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sporting/PM a	4.14	annual PM = \$3	3.000 of total ar	Reporting/PM: assume that annual PM = \$3 000 of total annual task cost, and that it is incurred annually	that is in comment of the state of the	
Ť	Issume that				that it is incorred aminamy.	
Ä			=(11.83)(3,000) =	= (ı	\$385,490	
The state of the s	ssume that F	Reporting costs	= \$7,175, and	that it is incurred an	Assume that Reporting costs = \$7,175, and that it is incurred annually for years 1-10, then biananually thereafter	ereafter
		years 1-10: (7.	years 1-10: (7.02) (7,175) = \$50,368	\$50,368		
		years 11-25: (see below)	see below)			
Ž	Year	Cost	Cum. Sum	Cum. PW		
	10	2603	50368	50,368		1
	11	3351	53719			
	12	3116	\$6835	53,484		
	13	2898	59733			
	7	2692	62428	56,179		***************************************
	15	2507	64935			:
	16		67266	58,511		
	17	2168	69434			
	18	2016	71450	229'09		
	19	1875	73325			
	20	1744	75069	62,271		
	21	1622	76691			
	22	1508	78199	63,779		
	23	1403	79602			
	24	1304	80906	65,083		
	25	1213	82119			
	28	1128	83247	112.98		
tal PW = 59,18	+166,91+09	Total PW = 59,150+76,997+13,922+35,490+66,211 = \$250,770	+66,211 = \$25	0,770		

Site Of 24, MacDill Arb	JIII Arb			
Alternative 2 Costs	sts			
Assumptions:				
20-ft long horizo	ntal bioventing/	20-ft long horizontal bioventing/biosparging well		
Power Available within 100 ft of well	within 100 ft of	well		
Well installed in 4-ft-deep trench	4-ft-deep trenc		The state of the s	· · · · · · · · · · · · · · · · · · ·
4 vapor monitoring points installed	ng points instal	led		
Base provides d	aily 10-min. che	Base provides daily 10-min. check during system operation	ation	
Capital Costs:				
Design, Remedi	al Action Plan, I	Design, Remedial Action Plan, Regulatory Approval		\$15,000
Trench Construc	tion (20 feet x \$	Trench Construction (20 feet x \$100/ft) + (100 feet x \$70/ft)	70/ft)	000'6\$
Well Installation				\$1,000
Blower, Blower !	louse, manifold	Blower, Blower House, manifold, piping, gauges		\$2,500
Monitoring Points	S			\$1,000
System Installation Oversight	on Oversight			
Labor	Labor (1 person x 150 hr x \$60/hr)) hr x \$60/hr)		\$9,000
ODCs				\$2,000
System Testing/	Festing/Optimization			\$5,000
Subcontracting				\$2,000
			Total	\$46,500
Annual Costs	\$15,435	for annual testing/reporting (see	orting (see attached st	attached spreadsheet)
	\$6,000	for semiannual testing/reporting	/reporting	,
CHI CAN CAN CAN CAN CAN CAN CAN CAN CAN CAN	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		- the transfer of the same of	

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Alterator 2

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Option One Extended Testing of Existing Bioventing Systems, Cost Per Site Title I A Services (For Work Completed in 1994 - 1997)

20-Jul-94 c:\biovent\option1.wk4

7013)	Cost	\$824.34		\$2,339.66		11,031.00				\$4,197.00	
	Hours	32		105		42		971			
		00		15		10		2		\$554.40	
		y		06	77	~		34		(6,06,0)	
Labor Hours			0		90		9	7.4		70 000	
			9		8				9	70.055	
			9		1		-		2	\$43.75	\$525.00
	Task Description		Tack 1: Administration		Tast 2. Friended Testing		Task J. Leuer Report Preparation		Total Labor Hours	1 shor Hourly Rates (CY 1996)	Total Labor Costs

1 00:201 1 2500 (00)	\$4,197.00
A Direct Labor Cost	
13 Home Office Overhead	77,878,47
Including Fringe 139.61%	
C Total Labor Cost	
D Other Direct Costs	. 00.927, (2
F Total Cand D	\$13,782.43
F Profit on Item E at 11.99%	

5

\$19,758.88 \$15,434.95

Total Cost (AK/111/Johnston Atoll)

Total Cost (CONUS)

22-141 50 SHEETS 22-142 100 SHEETS 22-144 200 SHEETS

SITE OT 27 MCDIU AFB Alterative & Present Work Gits

D PW = Capital Gots + Cannal Gots & Present Workfactor)

PWF (4 yrs) = 3,39 \(Pw \) (lovert/biospaye) = (\$46,550) + (3,39) (21,435)

= \[\frac{119,165}{119,165} \rightarrow

For LTM /Institutional Controls

Assume layers amual sampling & blianniche events throughter

= \$73,205 (from Alternative I Sprendsleet)

Assume annual Por and regarting on some annual/Siannual schedule as for sampling above:

Pm = 22 yrs annully

Regarding = Annually for 10 yr, then be more surapling events

PWF(3) yrs) = (1+0.07) = 11.06

Annullm(224-1) = (53,000) (11,06) = \$33, 150

Reporting = \$63,779 (from Alternative 1 Spreadshest)

Institutional Control = (\$5,000) (11.06) = \$55,300 Install Acas wells (from Alternative) = \$13,922 (Capital Cost)

Total PW for LTA/Institutional Controls = \$77,205+\$13,922 \$ 33,180 + \$ 63,777 + \$55,300 = 239,386

Total PW = \$119,115+ 234,386 [\$358,551]

Sy: JRH 2/12/16 (nocked by: T(E 2-14-96)	
SITE OT LY MacDILL AFB Alternative 3, Prevent WITH GITY	_
Capital Costs	
Make current recovery + treatment System operational Cess, replace promp+ wiring, repeak air stripper, etc.)	Assanc \$20,000
Bioventing System Installation Cfrom Alkantine 2)	446,500 V
Install New CTM/POC Wells (from Attendance)	\$13,922
Water Direlage Pernithy	\$ 5,000
Air Emissions Permitting	\$ 5,000
Annal Gits	Total \$ 90,422 V
GN Extraction System 0 \$m -Luber (14 visits & 6k-frisit & \$60/l-) -00(s (20 effluent samples x \$500/samplet \$2000)	# 1,640 } 240s
Quarterly System Petermanu Reports - Labor (Mrsports X 20 Ar/report X \$60/hr)' - 00Cs (Mrsports & \$200/report)	\$4,800 }270
Air Ariper Maintenance	\$7,000 2,00
(tra (humal for 10 yrs, followed by 4 biannel events) (from Alternative 1 spreadsleet)	\$8,235 18,41
LTM PM + Reporting (Alternative 1)	15175 18xx
Seminanual + Annual Testing / Regulaty For broventing / Sidspoying system	\$21,435 (3yrs)
	•

22-141 SO SHEFTS 22-142 100 SHEFTS 22-144 200 SHEFTS 3

 $PW = Capital C_{1}t_{1}t_{1} = \frac{(1+0.07)^{-1}}{(0.07)(1+0.07)}W = 10.06$ $PWF 2 yrs = \frac{(1+0.07)^{2}-1}{(0.07)(1+0.07)}U = 1.81V$ PWF 3yrs = Z62V

 $f_{W} = (20,640)(1.11) + (5,600)(1.11) + (7,000)(1.21)$ + 69,472 + 64,527 + (5,000)(10.06) + (3,000)(10.06) $+ 90,422^{1} + (21,435)(2.62) = [417,225]$

of ow extraction System of m

b/ Onwtoly Gw Estaction System Byorts

C/ Air Aripe Maintenen

d/ LTM of Ewells (from Alternative I spreadsteat)

el LTm Regarting (from Attentive 1 sprendsheet)

fl Institutional Controls

5/ LTM PM

LI Capital Gosts (previouspage)

il Semianual + Annual Bioverting/Siopnying system testing preporting